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ABSTRACT

A 2-year project provided inservice training to school personnel involved in vocational education and placement of trainable mentally retarded students in Pennsylvania. Project activities included a review of the literature, the development of task analysis training techniques, the compilation of a procedural manual and a job placement guidebook, the development of inservice training procedures, and the dissemination of training techniques. Program evaluation included summative and formative phases, the use of locally constructed questionnaires, and voluntarily arranged on-site visits by selected experts. Among dissemination activities were presentation at meetings of professional organizations, distribution of curriculum monographs to appropriate Pennsylvania agencies, and distribution of sound slides and a sound movie illustrating training techniques and task analysis. Two major curriculum guides were produced: Volumes VI and VII of the series, "Training for Independence" ("Preacademic Skills" and "Prevocational Skills"). Models for use of criterion referenced measurements, task analysis techniques, and methods-time-measurement procedures were conceptualized and disseminated through professional agency channels. (Author/DB)

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A MODEL FOR T.M.R. EMPLOYMENT:

FINAL, TWO YEAR REPORT

(Project Number 7400-1H)

(September 1, 1974, to June 30, 1976)

by

ROBERT M. BURGER, EDMUND J. COOMBE,
BARTON B. PROGER

October, 1976

MONTGOMERY COUNTY INTERMEDIATE UNIT 23

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ROBERT M. BURGER, PH.D., PROJECT DIRECTOR
EDMUND J. COOMBE, TECHNICAL ADVISOR

EC092200

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October, 1976

PROJECT SPONSORED BY

Montgomery County Intermediate Unit 23
1605-B West Main Street
Norristown, PA 19401

ACKNOWLEDGEMENTS

The Project is indebted to a number of individuals at the state level for their continuing support and advice throughout the period of operation:

John C. Pittenger, Secretary of Education
Dr. Gary Makuch, Director, Bureau of Special and Compensatory Education
Dr. William F. Ohrtman, Chief, Division of Special Education
Ms. Elaine Silvear, Coordinator, Federal Programs
Mr. Carl Thornton, Federal Program Specialist
Robert Warkomski, Adviser, Speech, Hearing and Language
Mrs. Mae Everhart, Administrative Assistant, Division of Program Planning and Development
Russell Demanczyk, Adviser, Trainable and Educable Mentally Retarded
Robert Piatt, Special Assistant Intermediate Units, Office of Basic Education
Dr. James Blair, Chief (Acting) of Program Planning and Development
John Resetar, Basic Education Associate

At the local level, appreciation is extended to the following individuals who have given freely of their time and ideas in helping guide the project to a successful conclusion:

Dr. Dennis U. Harken, Executive Director
Dr. Lester Mann, Director of Special Education and Principal Investigator
Dr. Robert H. Leiss, Assistant Director of Special Education
Mr. T. Peter Boardman, Assistant Director of Special Education
Mr. Jerome T. Potter, Supervisor of Special Education
Mr. William C. Towne, Supervisor of Special Education
Mrs. Sheila M. Buckley, Project Associate
Mrs. Janet E. Rambo, Secretary
Mrs. Joyce Cadmus, Secretary
Mrs. Judy A. Rizzo, Secretary

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SECTION I

PROJECT INFORMATION

Local educational Agency / Address: / Project Director:	Montgomery County Intermediate Unit 6198 Butler Pike, Blue Bell, Pa. 19422	State Project Number 7400-1H

DEBE-849(4/71)

ABSTRACT – NARRATIVE REPORT OF PROJECT FUNDED UNDER TITLE III ESEA

Title of Project:

A MODEL FOR TMR EMPLOYMENT

Funding:

Type	Period of Funding From	Period of Funding To	Amount of New Grant	F.Y. Source	Total Approved Budget Amount by Funding Period
In.App.	9/1/74	6/30/75	70,000	1974	
Cont.	7/1/75	6/30/76	65,000	1975	
TOTAL					

Proposed Termination Date 6/30/76 **Projected Funding Level for total project period** $135,000

TARGET POPULATION: The school personnel conducting prevocational or vocational programs for trainable mentally retarded students throughout the Commonwealth of Pennsylvania were served by this project.

MAJOR OBJECTIVES: Project objectives included a review of literature, the development of task analysis training techniques, the compilation of a procedural manual and a job placement guidebook, the development of in-service training procedures, and the codification and dissemination of prevocational and vocational training techniques for trainable mentally retarded students.

ACTIVITIES: The project gathered information concerning prevocational and vocational goal setting and the training of trainable mentally retarded students. This information was put in a form usable for in-service and workshop training of supervisory and classroom personnel. Cooperating agencies which received this training then provided evaluative formative feedback to the project about both task analysis and the training techniques. This feedback was embodied in the development and continual refinement of training materials.

EVALUATION: The evaluation design included summative and formative phases. A combination of locally constructed questionnaires and voluntarily arranged on-site visits by selected experts provided feedback under the two main types of evaluative phases.

DISSEMINATION PLAN: Initially, project information was disseminated through in-service activities. As grant-related findings were generated, they were submitted to professional organizations (e.g., AAMD, CEC) for presentation at national meetings. During the second year of the project, curriculum monographs were sent to appropriate agencies across the Commonwealth in order to create initial interest in the in-service capabilities and resources of the project. Selected training techniques and task analysis information were also available on sound slides and sound movie, becoming part of the materials and information holdings of the project. If the project had continued, job analysis information and supporting resources would have become available through a computer-based system.

Project Title: A MODEL FOR TMR EMPLOYMENT	State Project Number: 7400-1H

FINDINGS: Two major curriculum guides were produced: Volume VI of the series, Training for Independence ("Preacademic Skills") and Volume VII of the same series ("Prevocational Skills"). An annotated bibliography of crucial literature in these areas was compiled and donated to an ERIC Clearinghouse. Models for use of criterion-referenced measurements (CRM), task analysis techniques (TA), and methods-time-measurement procedures (MTM) were conceptualized and disseminated through professional agency channels. Many in-service training sessions were held. The curriculum guides (Volume VI and VII) were disseminated throughout the state.

Date completed or revised: 10/26/76	Completed by: Dr. Barton B. Proger	Phone: (215)539-8550

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TERMINATION REPORT - ESEA TITLE III

PDE-1393 (7/74)

INSTRUCTIONS: DUE DATE: 90 days after last grant period date. Complete and return report to ESEA Title III, Bureau of Planning a uation, Department of Education, Room 501, Education Building, Box 911, Harrisburg, Pennsylvania 17126.

SECTION I - PROJECT INFORMATION

NAME OF LOCAL EDUCATIONAL AGENCY

Montgomery County Intermediate Unit #23

ADDRESS	ZIP CODE
Colony Office Building, 6198 Butler Pike, Blue Bell, PA	19422

PROJECT TITLE	PROJECT TYPE
A Model for T.M.R. Employment	☐ REGULAR ☒ SPECIAL ED ☐ GUIDA

PROJECT NUMBER	NAME OF IU IN WHICH LEA IS LOCATED	NUMBER IU U
74001-1H	Montgomery County Intermediate Unit	23

CONGRESSIONAL DISTRICTS IN SERVICE AREA OF PROJECT

District #13

BRIEFLY SUMMARIZE THE PURPOSE OF THE PROJECT (BRIEF ABSTRACT)

The present project is a logical outgrowth of a previously funded Title III project, "Curricular Reorganization of TMR Classes," (See ERIC Document No.). The present project concerns the completion of an extensive review of literature in the area of vocational training for retarded children, the development of task analysis procedures and training techniques, the completion of two curriculum documents in the areas of preacademic skills and prevocational home skills (to become the sixth and seventh volumes of the previou project's series of curriculum publications).

NAME OF PROJECT DIRECTOR (MOST RECENT)

Dr. Barton B. Proger

ADDRESS	ZIP CODE
Special Education Center, 1605-B West Main Street, Norristown, Pennsylvania	19401

NAME OF PERSON AUTHORIZED TO RECEIVE GRANT	POSITION OR TITLE	AREA CODE A PHONE NUMBE
Dr. Dennis U. Harken	Executive Director	215-643-76

ADDRESS	ZIP CODE
Colony Office Building, 6198 Butler Pike, Blue Bell, PA	19422

SIGNATURE OF PERSON AUTHORIZED TO RECEIVE GRANT	DATE SUBMIT
Dr. Dennis U. Harken, Executive	11/5/7

INDICATE DEGREE TO WHICH TITLE III PROJECT ACTIVITIES HAVE CONTINUED AFTER PHASE-OUT OF FEDERAL SUPPORT.

☐ ACTIVITIES NOT CONTINUED

☐ ACTIVITIES CONTINUED AT LESS THAN ORIGINAL PROJECT LEVEL

☒ ACTIVITIES CONTINUED AT SOME LEVEL AS ORIGINAL APROJECT

☐ ACTIVITIES CONTINUED AT GREATER OR EXPANDED LEVEL ABOVE ORIGINAL PROJECT LEVEL

. PROJECT HAD PROJECT DIRECTOR(S) IN ADDITION TO THAT NAMED ABOVE, LIST BY NAME AND INDICATE DATES DURING WHICH EACH POSITION.

Dr. Robert M. Burger, 9/01/74 - 1/31/76

IS THE MOST RECENT PROJECT DIRECTOR NAME NAMED ABOVE PRESENTLY A MEMBER OF LEA'S STAFF?	IF NOT, INDICATE HIS MOST RECENT KNOWN ADDRESS
☒ YES ☐ NO	N/A

INDICATE LOCATION OF PROJECT'S FISCAL AND PROGRAM RECORDS.

Microfilm/Microfiche Records System
Special Education Center
1605-B West Main Street
Norristown, PA 19401

and

Federal Projects Accounting Office
Main Administration Building
6198 Butler Pike
Blue Bell, PA 19422

LIST ALL GRANT AWARD LETTERS, INCLUDING AMENDMENTS TO AWARDS (INCREASES OR DECREASES INDICATED BY AN "-")

DATE(S) OF AWARD	AMOUNT	PROJECT BUDGET PERIOD FROM	PROJECT BUDGET PERIOD TO	AMOUNT UNCLAIMED OR RETURNED
1/28/75 *	70,000.00	9/01/74	6/30/75	$ 728.14
6/03/75	65,000.00	7/1/75	6/30/76	$ 496.82
4/16/76 (addendum)	6,288.89	7/1/75	6/30/76	$ -0-
* (This grant revises the grant award letter of 7/10/74)				$
				$

SECTION II - PROGRAM SUMMARY INFORMATION

(Summarize on separate sheets of paper in narrative form for entire life of project using following suggested outline)

1. List and describe the personnel positions of the project indicating the following: positions which were in effect throughout project's life, those which met special needs during only a portion of the project, part-time vs. full-time positions, use of consultants, para-professional and clerical staff.

2. State the purpose of your project in terms of its original objectives. If any deviations from the project's original objectives occurred, state the new objectives and explain why the changes were necessary.

3. Describe the participants/clientele of the project. What was the target group of the project's activities? How were the participants selected? Was th project for a single district? several districts? within a county? regional? Statewide consortium? Give approximate numbers of participants. Was the an identifiable indirect clientele? If in-service of teachers or other staff was a component, describe selection process for participants and whether in-service was done primarily in summer or during school year. Note also degree of non-public school involvement.

4. Specify the procedures utilized to attain the project's present objectives. (Include types or services and activities.)

5. Describe all evaluation procedures used during the life of the project. Similarly, describe any subsequent evaluation activities. (Do not include on-s evaluation.)

6. Describe any "hard data" that has resulted from evaluation activities of the project (i.e., research findings).

7. Specify the project's outcomes or results in order of importance.

8. Discuss the implications of the project's results as they relate to your LEA; to education in general.

9. List the most prominent factors pertinent to the project's successes in order of importance. Explain.

10. List the most prominent factors pertinent to the project's shortcomings in order of importance. Explain.

11. List the "concrete" outputs of the project, i.e., did the project produce curriculum guides, a manual for implementing new teaching strategies, resource collections, evaluation instruments, or any other tangible products capable of being shared with other interested persons. As part of your response, include your annotated bibliographies of instructional and curriculum materials and audiovisual programs.

12. Discuss dissemination activities; disregard activities of a strictly public relations nature aimed at the general public; relate only those activities whic were intended to promote diffusion of the project's methods or design to other districts or which resulted in other educators seeking information on how to implement your project in their district.

13. Discuss continuation of project activities after withdrawal of Federal support. Include description of strategies used by project personnel to assure continuation.

14. Describe efforts by other districts or Intermediate Units to adopt or adapt in whole or part activities developed by this project.

SECTION II

PROGRAM SUMMARY INFORMATION

1. PROJECT PERSONNEL

Project Directors: Dr. Robert M. Burger, 9/01/74 - 1/31/76
Responsibilities: direction of personnel fiscal management, project administration, Special Education personnel in-service.

Dr. Barton B. Proger, unpaid director, 2/01/76 - 6/30/76
Responsibilities: direction of personnel, fiscal management, project administration.

Technical Advisor: Edmund J. Coombe 9/01/74 - 6/30/76
Responsibilities: literature search coordination, curriculum development, technical editing, Special Education personnel in-service.

Literature Searchers/ Curriculum Writers: Anthony Biacchi, 9/15/74 - 12/31/75
Linda Diamond, 9/15/74 - 6/30/75, 2/01/76 - 5/01/76
Philip Matilsky, 9/15/74 - 6/30/75
Marilyn Rintamatti, 9/15/74 - 6/30/76, 2/01/76 - 6/15/76
Rhoda Weiner, 7/15/74 - 6/30/75, 2/01/76 - 6/15/76
Sedra Schitman, 6/01/75 - 6/30/75, 2/01/76 - 6/30/76
Responsibilities: reading, abstracting, and codifying literature in major and related fields; writing of task analyzed curriculum

Literature Searchers: (Part-Time) Thomas Theodore, 9/30/74 - 6/30/75
Susan Ponz, 9/30/74 - 6/30/75
Responsibilities: reading, abstracting, and codifying literature in major and related fields

Secretarial-Bookkeeping: Joyce H. Cadmus, 9/01/74 - 9/18/75
Janet Rambo, 9/15/75 - 6/30/76
Responsibilities: literature cataloguing, purchasing, bookkeeping, correspondence, general typing, travel arrangements for in-service presentations.

Contracted Services: Maynard Research Council, 3/30/75 - for training of project personnel and lease of materials to train project participants in Methods - Time Measurement Techniques, a type of predetermined time system - to - 6/30/76 (Located in Pittsburgh, PA) for training and leasing materials

William Oates, June, 1976
Responsibilities: Development of a computer program to access codified literature materials

2. ORIGINAL PROJECT OBJECTIVES

Project 7400-1H responded to the expanded needs of special education personnel working with Trainable Mentally Retarded students, as originally identified by "Curricular Reorganization of TMR Classes" (Project 7202-1H), by establishing the following objectives early in 1974.

A. To conduct systematic investigations of literature pertaining to identifiable factors which determine the successful training and job placement of trainable mentally retarded individuals.

B. To develop appropriate prevocational and vocational training techniques.

C. To establish a procedural manual to provide prevocational training to be used in existing school facilities.

D. To develop a guide book dealing with job finding and placement techniques.

E. To develop a delivery system for in-service and work-shop training.

F. To catalog project materials for state-wide dissemination.

INTERMEDIATE UNITS

AS ENACTED BY THE PENNSYLVANIA LEGISLATURE
HOUSE BILL 40–ACT 102
SENATE BILL 1225–ACT 103

3. PARTICIPANTS/CLIENTELE

Personnel working with Trainable Mentally Retarded (TMR) individuals throughout the Commonwealth of Pennsylvania received various types of services from project personnel. During the first year of the project (1974-75) in-service programs were offered to six target Intermediate Units (I.U.'s). The six Intermediate Units were chosen from among the twenty-nine (viz., I.U.'s 8, 10, 11, 17, 23, and 26 were included). The reader should refer to the state map of Intermediate Unit areas to understand the location of these target areas. They were selected because project and State Department of Education personnel felt they would serve as a representative cross-section of programming and service delivery models currently being offered to Trainable Mentally Retarded students. Examples of the Target Intermediate Units' demography and services are as follows: Intermediate Unit 8 provides the educational program to two State Schools and Hospitals (Cresson and Ebensburg) contained within its geographic area; Intermediate Unit 10 and Intermediate Unit 11 are primarily rural Intermediate Units; however, Intermediate Unit 10 has a large university (Penn State) and a state college (Lock Haven) within its geographic area - both Intermediate Units have widely scattered self-contained classes; Intermediate Unit 17 has a middle-size urban area (Williamsport) and serves its Trainable Mentally Retarded children in centers as opposed to scattered classes; Intermediate Unit 23 is one of the most heavily populated suburban areas of higher socio-economic status in the state and Intermediate Unit 26 is the largest urban area (Philadelphia).

The Executive Director and the Director of Special Education of each of the target Intermediate Units were contacted by project personnel and the project was explained to them. These Intermediate Unit administrators would then invite

staff members and, in many cases, both public and nonpublic personnel working with other agencies (e.g., sheltered workshops) to participate in what were usually one-day in-service or workshop presentations given by project personnel. The objectives of the workshops were (a) to allow Project staff to interact with participating personnel in order to determine what program objectives in prevocational training currently they were using for TMRs; (b) to determine what were the problems, if any, involved in reaching these program objectives; (c) to discuss possible solutions to the problems which were contained in the literature or being used by other Intermediate Units or educational agencies, and (d) to familiarize the personnel with new materials, educational technology, and various types of programming which were uncovered during the extensive literature search conducted by the project.

In some of the target Intermediate Units, in-service presentations of an intensive follow-up nature were given in particular prevocational areas (e.g., task and job analysis). Extensive training in an industrial engineering system (Methods-Time Measurement) was offered to 29 supervisory or master teacher personnel in fourteen Intermediate Units throughout the state. (More information on this system and its uses in Special Education can be found in Section 4, on "Procedures, Services, and Activities").

Plans were formulated near the close of the first project year to provide extended in-service or workshop sessions to the remaining twenty-three Intermediate Units during the second and third years of the project. During the second year eleven Intermediate Units were to be served and during the third year the twelve remaining Intermediate Units would be offered services. However, a cutback in funding and the reduction of the project grant period from three years to two years changed these plans. Consequently, during the final (second) year of the grant eight additional Intermediate Units (9, 12, 13, 16,

18, 19, 21, 22) received services similar to those offered the original six target Intermediate Units. In addition to the aforementioned services offered in the workshop sessions, project personnel gave participants extensive information on the utilization of a procedural manual for prevocational training. This manual was adapted to a criterion-referenced measurement system and became "Volume VII, Prevocational/Home Skills" of Training for Independence, a comprehensive curriculum series for the Trainable Mentally Retarded students begun by the previous project, Curricular Reorganization for Trainable Mentally Retarded Classes (Title III). Further information on this curriculum volume can be found in Section 4, "Procedures, Services, and Activities").

During the last project year, project personnel also cooperated with and offered support to an intensive in-service training pilot project, "Project Outreach." This latter project was designed to offer 45 clock hours (3 credit hours) of in-service training in prevocational and psycho-sexual training for personnel working with Trainable Mentally Retarded in seven primarily rural Intermediate Units (8, 9, 10, 11, 16, 17, 19). Personnel from "A Model for TMR Employment" contributed their experience and material on an unpaid consultative basis to "Project Outreach," which operated from August 1, 1975, to June 15, 1976.

In summary, project personnel served fourteen of the twenty-nine Intermediate Units and offered services in the form of workshops and in-service programs to over one-half of the approximately 1,200 teachers of Trainable Mentally Retarded students in Pennsylvania.

4. PROCEDURES, SERVICES, AND ACTIVITIES

In order to follow the first of the project objectives (as presented in Section 2), plans were formulated at the start of the project to outline how an intensive, systematic search of the literature would be accomplished. Prior to hiring and training six (later seven) part-time literature searchers, project personnel identified informational resources to form the basis for an intensive literature search on factors for determining the successful training and job placement of TMR individuals (see Appendix A-1 Periodicals List). This was followed by the development of a systematized method of recording information found in the literature (see Appendix A-2 Cover Sheet and Appendix A-3 Cover Sheet Explanation). When the literature searchers were hired they received training in abstracting literature and in completing the Cover Sheet. It was the intent of project personnel that the Cover Sheet should contain in computer retrievable form the information which was written in the abstract. The designers felt that, not only could the information be easily referenced in this way, but that this method of recording would also serve as a check and balance system for the literature searchers (see Appendix A-4, Sample Cover Sheet and Abstract).

During the first year of the project approximately 1,500 pieces of literature were reviewed, abstracted and coded for computer retrieval. These pieces were assigned to three major areas of prevocational programming interest: training, assessment, and guidance. Although the major thrust of the literature search was in the area of training, both the assessment and guidance areas were included, as it was found early on that there were almost no articles which spoke solely to the prevocational training of TMRs. Contained within these three program areas were ten subject areas: task analysis; job success of TMR

students; prevocational evaluation; vocational training and placement techniques; industrial engineering and industrial psychology technology; current, rehabilitation practices; methods and materials for TMR work-training; activities of other projects and programs; related resources, and materials; task and job analysis techniques; methods of reinforcing success (for a brief review of some general findings in these subject areas see Appendix B, "Synopsis of Literature Review").

The 1,500 "Cover Sheet Abstracts" were edited and a "bits of information count" was taken on the Cover Sheets. For computer retrieval purposes, it was decided that those Cover Sheets which contained five or less "information bits," excluding APA information e.g., anything above #48 on the Cover Sheet (refer to Appendix A-2) would not be punched on cards. As a result of this decision, approximately 1,100 Cover Sheets were transferred to computer punch cards. Project personnel had originally intended to make this literature search available to educational personnel throughout the State on a request basis, either through computer terminal or in a limited hardcopy version. Because the cost of either option was prohibitive (primarily because a retrieval program had to be designed before any means of dissemination was considered), neither occurred. At the close of the final year of the project, however, a retrieval program was designed and preliminary runs on variables such as research (48-1) in prevocational (49-3) training for TMRs (50-1) have been done. These runs have proven the approach was successful, and negotiations to have the literature search made available through some national retrieval service are being conducted.

As the literature search was being completed, full-time project personnel (who were serving as editors) used the information to develop appropriate prevocational and vocational training techniques which served as the basis for their workshops and in-service offerings outlined previously in Section 3. These

activities satisfied project objectives B (developing appropriate prevocational and vocational training techniques) and E (developing a delivery system for in-service training).

Project Objective C (establish a procedural manual to provide prevocational training...) which was spoken to briefly in Section 3, was met by the completion of Volume VII of Training for Independence ("Prevocational Home Skills"). Information from the literature and feedback from workshop participants allowed project personnel to make decisions on what would best constitute a manual for prevocational training. The rationale behind the final format for, and the content areas within, "Prevocational Home Skills" were based on many factors. An explanation of some of these factors follows.

I. Prevocational Home Skills: The project chose home skills in six areas; cleaning, bedmaking, washing and ironing, sewing, cooking/food preparation, and maintenance (a seventh area of storing was originally planned but not included in the final version) to map onto potential vocational skills for the following reasons:

   A. In-service participant feedback confirmed the implications in the literature that personnel working with TMRs at most have only the equipment normally found around the home. Consequently, home skills seemed like a logical beginning for prevocational instruction.

   B. Most personnel working with TMRs have enough knowledge in an area such as maintenance to be able to offer proper instruction. Further, they may not realize that the training they are offering maps onto specific occupations (see Appendix C).

   C. Home skills which are not specifically used to map onto a particular prevocational sequence, are still considered useful for TMR students to learn. The ability to perform the skills decreases the

dependency of the TMR children on others in the environment.

D. Strong support is evident in the literature and from participant feedback that TMR children who are successful in finding and maintaining competitive employment often work in service-related occupations. Home skills map very well onto service jobs.

II. Criterion-Referenced Measurement (CRM) and Task Analysis (TA) approaches were chosen as working formats because there is evidence that both CRM and TA are valuable tools for (special) educators.

A. The CRM system of assessment prior to, during, and after the task performance points out areas of strength which can be built upon, as well as areas of weakness which need amelioration. This system had been used successfully in the other six volumes of Training for Independence as well as in other curricula. CRM can also serve as a "built-in" accountability system for a program in that it shows what was done and when it was done.

B. Task Analysis, or the breaking down of tasks into their component parts, has proven to be an effective tool not only to train learners, but also to train trainers. Doing a TA is time-consuming and often arduous work. On the other hand, training individuals by starting with an existing TA usually results in more effective training. The trainer is freer to monitor the trainee's skill performance, lessening concern over their own performance. Although there are many existing TA formats in the literature, the majority of them lack two vital components which project personnel found necessary in training TMRs: the TAs either begin on too high a performance level without specifying the entry level skills needed to successfully perform the TA; or they lack a common language or

format. These omissions result in user confusion through misinterpretation. "Prevocational Home Skills" attempted to avoid user confusion by using the same format throughout (see Appendix D, "Sample Format"), identifying all entry level skills, and establishing a common language of Method Verbs (MV) and Concept Areas (CA).

1. Method Verbs are performance words. They appear at the beginning of each step of a TA to indicate what should be done (e.g., grasp the...). "Prevocational Home Skills" employs approximately 180 method verbs (see Appendix E, "Method Verb List"). These method verbs have as their core the entry level skills which are taken from the Methods-Time Measurement techniques (e.g., Reach, Grasp, Move, Position). MTM is an industrial engineering system of job or task analysis discussed previously (see Appendix F-1, "MTM Basic Motions"). The method verbs and particularly the basic motions used in MTM would further be used as a common language when work placement supervisors analyzed jobs in the community, which would then be performed by TMRs on a simulated basis in the classroom or in actual work settings. Further, the predetermined times assigned to the MTM system could be used to set up "normal performance criteria" toward which TMR students could work in simulated or actual job settings. These and other uses of MTM for training TMRs (such as simplifying work places) were offered to workshop participants and to in-service participants by project personnel. (See

Appendix F-2 for a brief description of MTM).

2. Concept Areas were used within the Activity Sequence (all the steps, including the actual TA itself, necessary for independent student performance) as learning aids for particular parts of the task. Ideas in the literature and the feedback from in-service participants revealed that many parts of tasks require decisions to be made by the student. Project personnel labeled these steps Decision Points (DP) and attached the appropriate CAs to them. For example, turning on a faucet to wash dishes, or even hands, could require knowledge of the concept "hot-cold," especially to prevent scalding or injury. "Prevocational Home Skills" (Volume VII) includes screening tests for this and other CAs (e.g., "sharp-dull" and "on-off" for electrical or mechanical equipment) so that both the trainer and the student would be aware of potential danger in a task. Other CA uses examined by project personnel and workshop participants included the monitoring of generalizability of concepts across tasks, and the inclusion of the approximately 40 CAs and the 180 MVs into a core vocabulary for TMR children.

Original Project Objective D (see Section 2) was not undertaken. A guide book dealing with job finding and placement techniques (Objective D) was to be the product of the third year of the project, which as mentioned previously was not possible due to termination of all Title III projects.

The majority of tasks associated with Objective F was achieved. The availability of the literature search is stated in Part 3. The statewide dissemina-

tion of "Prevocational Home Skills" was accomplished. Over 1,000 copies were printed and sent from Montgomery County Intermediate Unit #23 to personnel working with TMR children, primarily teachers, in the twenty-nine Intermediate Units throughout the Commonwealth of Pennsylvania. In addition, project personnel cooperated with the other related Title III Project ("Curricular Reorganization of TMR Classes") in the completion and dissemination of "Academics" (Training for Independence, Volume VI). This volume, which was begun by the personnel of the aforementioned project, contains many models for prerequisite skill training (e.g., matching) which are necessary to successfully begin "Prevocational Home Skills."

Appendix G contains the "Table of Contents" and selected sample pages from Volume VI, which deals with "Preacademic Skills." Similarly, Appendix H contains the "Table of Contents" and selected sample pages from Volume VII, which deals with "Prevocational Skills." From these two appendices, the reader can get an idea of the types of material that were covered in the production of these two training volumes.

5. EVALUATION PROCEDURES

As indicated in the objectives stated in this report, the project was primarily designed to serve educational personnel rather than students directly. Therefore, evaluation relied primarily on the subjective reaction of clients to products and services provided by project staff, rather than on changes in student performance. Formative and summative on-site evaluations were arranged voluntarily by the project, along with the state-mandated summative on-site evaluations were utilized in the following manner.

It was determined during the development of the project that the evaluation design would have two components: 1) Training services and 2) Products. Training services were developed according to needs identified within each Intermediate Unit served. Clients were contacted, aided in identifying their own needs, and asked to participate in the development of in-service programs which would help Intermediate Unit personnel in providing services to handicapped children. As indicated previously, in-service could be of an initial overview nature or could provide in-depth training leading to graduate level credit and certification in a job analysis procedure (MTM, or Methods-Time Measurement procedures).

If project personnel were asked only to provide overview training, the primary contact person within the Intermediate Unit was asked by the project director to provide some sort of written documentation of the value of the project to the organization receiving service. In each case the contact person was encouraged to honestly appraise in what areas the project had succeeded in providing valuable training to participants and to outline those areas where the project could be of greater help. Appendix M provides a sampling of letters received from Intermediate Unit contact people. They were not selected so as to reflect a bias of only favorable responses but were randomly selected so as

to be representative of the responses received. Training services done in conjunction with "Project Outreach" were evaluated in a more formal manner. The format in which this is done is described in Section 6 of this report.

Product development was also evaluated using formative and summative methodologies. Project personnel made every attempt to ensure that all levels of the educational community became involved in reviewing and commenting on products developed by the project. Since both the computerized literature search and Volumes VI and VII of Training for Independence were targeted for educators employed by local educational agencies (LEAs) within the Commonwealth of Pennsylvania, it was critical to ensure they had adequate voice in the formative phases of these products. In order to do this, various supervisors and directors of special education, within selected Intermediate Units, were asked to review and critique these products. In addition, selected skill areas from the prevocational home skills curriculum were presented to supervisors, teachers and aides attending in-service programs. Their comments were solicited in written form and, where feasible and appropriate, were integrated in drafts of the curriculum. Similarly, critical comment was solicited from educational and administrative personnel employed by nonpublic special education agencies which work closely with Intermediate Units or local districts within the Commonwealth. Examples of these organizations would be "Hope Enterprises" (Williamsport, Pa.) and "Futures" (Bradford, Pa.). Advocate agencies representing the input of parents and other people responsible for exceptional children were also reflected in project products. This was accomplished through discussions with representatives of such organizations as the Mental Health/Mental Retardation Base Service Unit network, Pennsylvania Association of Retarded Citizens, and Council for Exceptional Children. At another level, evaluation occurred through the solicitation of review by qualified individuals working within university settings.

Dr. Mark Gold, University of Illinois, was involved in several discussions concerning the relevance of MTM concepts to the educational community. Also, Dr. Andrew Halpern reviewed Volume VII of Training for Independence and also was instrumental in coordinating the contents of the curriculum with measures currently being developed to assess vocational competency of trainable mentally retarded students. Formative and summative evaluation also occurred with both state educational agency personnel and representatives of the Bureau for the Education of the Handicapped. Dr. Edward Sontag (BEH) received a presentation of project activities and was involved in a subsequent discussion specifically relating to the products. At this time, he indicated that the products were needed and, in their present state, could have nation-wide impact. State Education Agency (SEA) personnel were kept aware of each facet of product development and reviewed products before the final dissemination phase was carried out.

A chart summarizing all forms of evaluation is included in Table 1 of this section.

6. FORMAL RESEARCH AND EVALUATION FINDINGS

Of the two main thrusts of this project, the training activities were the only dimension to be evaluated in a formal, summative fashion. A questionnaire was devised to carry out this purpose and is presented in Appendix K. The results from the use of this form in the several training sessions that were held are partially presented in Appendix L. In that Appendix, one will see data from two of the training sessions. Numerical summary data as well as representative comments are provided to show the types of formal evaluative feedback that were obtained by this method.

As one can surmise from the description of activities in this project, a great deal of the project staff's efforts were directed toward product development (not only for its own sake as the second major thrust to the project, but also to facilitate the first major dimension, namely, the training activities). The area of product development made use of extensive and continuously occurring formative evaluation data. Because of such data's sheer bulk, the project director decided to concentrate staff efforts on immediately incorporating feedback into the product refinement activities rather than make mechanical efforts to record such data in and of its own sake. Therefore, the extremely specific formative evaluation feedback will not be provided in this report.

7. PROJECT OUTCOMES

Because the project was designed to be both a product producer and a service provider, it is somewhat difficult to state project outcomes. The in-service presentations and workshops quite possibly offered participants a rationale for changes in prevocational programming and the curricular volumes may have given them the impetus for program implementation or expansion. Measuring these possibilities, however, would take a longitudinal study which is not within the purview of the project. What can be stated is that observational changes were noted by both project personnel and supervisory/administrative personnel in the Intermediate Units served.

At the onset of the project almost none of the target Intermediate Units had any formalized prevocational programming for the trainable mentally retarded. Most contact personnel (e.g., special education directors or supervisors) explained that they had been dealing with prevocational programming for the educable mentally retarded (EMR) for years and had viable work-experience programs and vocational training programs as ongoing services. The TMR population, however, was not receiving the same types of services. After initial in-service or workshop presentations by project personnel, most of the Intermediate Units began to formulate plans for some type of prevocational programming for the trainable mentally retarded. During follow-up workshops or through communication with supervisory personnel, project personnel discovered that the Intermediate Units were making plans to implement prevocational programming such as (a) establishing a "home living" suite in a building housing TMR classes; (b) purchasing services from a local sheltered workshop to provide worker training; (c) writing proposals to fund prevocational training in areas such as horticulture, building repairs, and maintenance; and (d) extending the existing service model for the

educable mentally retarded to include the trainable mentally retarded.

Project personnel began to see changes in Intermediate Unit programming for trainable mentally retarded students during the two years of service offerings. The fact that program changes began to occur may be explained by the state of readiness in the Intermediate Units for change, with the project activities serving as a catalyst, or the changes may have occurred for any number of other reasons. Nonetheless, it would seem that the project's most important result was facilitating change through the provision of services and products.

Possibly what allowed the project to have any influence on change and even act as a facilitator for these changes was the continuing influence of the community on the programs offered by the Intermediate Units. It does not seem unfair to state that few, if any, of the Intermediate Units which received project services had trained personnel who could implement prevocational programming, even though most Intermediate Units were feeling the community pressure to provide this type of programming.

"A Model for TMR Employment" did not provide the extensive type of training needed to begin successful prevocational programming, but it did assist the Intermediate Unit staffs as a whole to understand what could comprise a successful prevocational program. The extended training sessions offered by the project and especially the 45 hours (3 in-service credits) offered to seven Intermediate Units by "Project Outreach" allowed participants to receive more in-depth training in prevocational programming. The extended training model begun by this project and the new "Project Outreach" is being offered to all other Intermediate Units in Pennsylvania through a two-year grant from the Bureau of Education for the Handicapped (Berks County Intermediate Unit serves as the local educational agency). This two-year project("Training Habilitators of the Retarded") will

serve ten Intermediate Units during the first year and twelve during the second. Further information can be obtained by contacting either Philip Matilsky or Edmund Coombe, Project THOR, 3010 St. Lawrence Avenue, Antietam Center, Reading, Pa. 19606.

8. IMPLICATIONS OF PROJECT RESULTS

The training offered was based upon this project's literature review on prevocational research for the retarded. It revealed that there is a growing technology evident throughout the country and many workers are going beyond the beginning steps of this technology. However, from discussions with school personnel working with the trainable mentally retarded in Pennsylvania and in other sections of the country it does not seem that this technology is being utilized in programming. The well-known lag between theory, research, and implementation in the classroom is evident, even some of the proven and readily available techniques (e.g., for job analysis and training) are not being utilized on a system-wide (school district) basis. Various reasons why this technology is not being adopted or adapted follow.

Project personnel received much feedback on the lack of preservice or in-service training available to program planners and their staffs in the area of all prevocational training. This lack of training is probably the single most outstanding reason given for not implementing existing technology. Other reasons include some outside of the schools' purview such as: high unemployment rates in the area; lack of governmental or private agency services (e.g., vocational rehabilitation services or sheltered workshop facilities); insufficient public transportation. While within the schools' purview of programming one found reasons such as these: no overall (comprehensive) curriculum; nonacceptance of trainable mentally retarded students in industrial arts classes, home economics classes, or in vocational school programs; lack of dually trained personnel (e.g., special education and vocational education); lack of adequate facilities or monies for programming; lack of career education and/or guidance programs for the trainable mentally retarded.

Obviously, it would be impossible to speak to all of the above reasons for non-implementation of technology, as some of them are national as well as local concerns, and are voiced by the general public as well as workers in the field. However, it is possible to question respondents as to whether they know which of these reasons for non-implementation actually exist in their own area. The process for implementing technology at the local level begins by actually surveying the "state of the art" in the local area; then program planners need to look at several other aspects before comprehensive prevocational programming for industrial employment can begin.

The first aspect to be explored for comprehensive prevocational programming for industrial employment is the community (the community should be defined as the geographic area served by the educational organization e.g., a city or one or more counties). In looking at the community, many of the provisions of service agencies such as vocational rehabilitation will be already known to the program planner, as may many service industry job locations. What is probably not so well known, and would need to be surveyed, is the industrial employment situation. Pennsylvania, like many other states, has an informative county by county "Industrial Census" which is updated at least every two years and is available from the Department of Commerce. This "Census" coupled with information from the local Chamber of Commerce, the local telephone directory, and the Dictionary of Occupational Titles Volumes I and II (1965) can start the programmer on his survey of community employment. Through telephone calls and on-site visits, the programmer can determine for example: which industries are expanding or hiring; which have high turnover rates; which have employed handicapped. It goes without saying that this survey should be systematized. There are vehicles which can assist the programmer in completing an accurate and meaningful survey. One vehicle, the Dictionary of Occupational Titles has already

been mentioned and should be studied to assign particular jobs to occupational fields. Once the programmer has the feel of overall occupational field organization, then specific industries can be looked at. The programmer will quickly realize that even though a few industries may use the same titles for jobs, the duties often differ greatly. What is then needed is a model or paradigm for analyzing the particular industry; the United States Government has a very informative, inexpensive manual Handbook for Analyzing Jobs (1974, 1976) which will enable the programmer to accomplish the analysis. The final step in the process of surveying the employment possibilities within the community is looking at (or analyzing) specific jobs within an industry.

Prior to addressing this final step, the programmer will undoubtedly have realized that he is using a whole new vocabulary or, at the very least, attaching different meanings to familiar words. He may well wonder how he is going to "translate" all of this information so his staff can implement it into programming. He may begin to answer this question by using the aforementioned Handbook for Analyzing Jobs and Methods-Time Measurement. Both the "Handbook" and MTM establish a common language which can be invaluable in analyzing specific selected jobs. In addition to providing a common language, MTM also assigns predetermined times to the basic motions of a job so that the resulting analysis also contains a performance standard.

After the analysis of selected specific jobs, the programmer can develop some other aspects of prevocational programming. The actual jobs, or simulated versions, can be introduced into the program, with little staff training, as the job analysis will give a step-by-step description of the job. Additionally, staff members will be able to assess student performance to the industrial standard established by using MTM. Other aspects of a real work situation such as time clocks and even recordings of the sounds of the actual work environment

can obviously be introduced to make programming more realistic. When the student has "learned" a few jobs he should be placed on work experience in the actual job setting. There are several advantages to this type of prevocational programming: it promotes "enlightened dialogue" with industry; the educator who utilizes industrial language and techniques can obviously help in placement; it offers the employer a job candidate who has had at least some initial training and knows, for example, what "production rate" means; it gives the program a built-in accountability system showing the types of jobs students are exposed to and the degree to which they can perform those jobs; it aids in proper student placement; and it opens up a relatively untapped area (industry) of potential employment for trainable mentally retarded students.

One wonders why the logical connection from sheltered workshop type of employment to industrial jobs has not often been made by many programmers. The situations are much more similar in types of jobs done than sheltered workshop employment is to the service industries (where most work-experience programs place students for employment). Perhaps some of the work done by this project and others in the field will cause programmers to take another look at their existing or planned programs for prevocational training. All handicapped children, not only trainable mentally retarded, could be exposed to this type of industrial job training. After all, if more than one-half all jobs are of this type, does it make sense to not consider them for the handicapped?

9. FACTORS RELEVANT TO SUCCESS

In identifying the factors leading to successful obtainment of project objectives, it is perhaps best to begin with those factors enumerated in the formal evaluation procedures conducted during the ESEA Title III on-site evaluation. The evaluation team summary results would indicate that the primary strengths leading to success were: (a) materials were developed on a thorough search of the literature; (b) record keeping was conducted as part of formative evaluation, all of which was integrated into the materials; (c) considerable time was spent on developing concepts which would lead to meaningful training of trainable mentally retarded pupils; and (d) project staff planned in-service programs with an awareness of the existing competencies and needs of in-service participants. The actual evaluation team summary, as completed during the state on-site visit of 1976, is included in Appendix J of this report.

In addition to these third-party forms of evaluative analysis, the project directors have completed a self-evaluation to reveal elements which they felt were important in achieving the objectives of the project. Primarily, these concern the training efforts of the project and the fact that the authority for in-service training came both from the project objectives themselves and from representatives of the State Educational Agency (SEA) which the project served. By allowing project personnel to begin negotiations and complete in-service obligations directly with participating Intermediate Units (without involving in any way evaluative reflections upon the local staff abilities) proved to be a most critical element in successfully completing specific goals of the project. Once in-service participants realized that staff was there to provide information and to work with them on concerns they had relevant to vocational training of trainable mentally retarded students, a free flow of communication was

readily established. At no time during the in-service offerings did project staff make any attempt to report the activities of teachers to supervisors, or on the other hand an advocacy role for teachers or aides. Thus, any potentially threatening aspects were kept to a minimum. In-service participants also seemed to respond very favorably to the fact that project personnel would enter into a formal in-service agreement, not only offering information in verbal form, but also providing written curriculum material which would support the concepts that were presented. It should be noted that in-service was never conducted on strictly a one-occurrence proposition. At all times, local Intermediate Unit administrative personnel were encouraged to involve the project over an extended period. It was more important that in-service be conducted on a periodic basis than in manipulating the length of time between in-service training sessions.

The actual content of the in-service programs proved to be very significant element in the reaction of audiences. It was determined in the beginning of the project that all material would be developed for those educators working with trainable mentally retarded students. When Intermediate Units were approached about possible in-service commitments, it was recommended that only staff who were directly connected with the education of trainable mentally retarded children attend. Often this recommendation was not heeded and other exceptionality groups were invited to participate in in-service programs. For educators dealing with trainable mentally retarded, and severely and profoundly retarded children, project personnel found that the material presented during the in-service sessions was very specific, was appropriately targeted, and had much relevance. However, the material often proved to be much too basic for those dealing with older educable mentally retarded students or many children classified as learning disabled, emotionally disturbed, or brain injured. As the project continued,

project personnel made quite sure that audiences were not only appropriate for the material being presented, but that they were also limited to a number which would be responsive to the formating of the material presented.

Careful records were kept and observations were made in order to evaluate various types of training procedures. It was found that for the type of presentation which involves simulation, role playing and gaming, the number of participants should be restricted to approximately 20. Following training, project staff found that numerous invitations were offered for staff to make follow-up visits to teachers' and aides' classrooms. During these visits, teachers would discuss vocational training topics with staff and would often ask their advice concerning other aspects of working with TMR children. This proved to be an excellent opportunity to receive formative types of evaluation feedback as mentioned in Section 5 of this report. As this practice continued, critical comments made by supervisors, teachers, and aides were documented and reflected in products developed by project staff.

10. FACTORS RELEVANT TO SHORT-COMINGS

As with question 9, the fairest approach to identifying weaknesses within the project would be to examine comments by the ESEA, Title III On-Site Evaluation Team. These individuals were not involved in the daily activities of the project, and their comments may be taken as free of any bias which would come from working closely with project staff and objectives. Their comments basically reflect the fact that much "lip-service" is paid to the vocational area of education, but little appears to be done about it on a state or regional level, thus making the role of the project an extremely difficult one. Also, the evaluators noted that although assessment of needs in various Intermediate Units was apparently undertaken (this is reflected in summative comments by Intermediate Unit personnel), this form of needs assessment was not well-documented. It was noted by the evaluators that this form of documentation might have been forthcoming had another year of funding been available under the now defunct Title III process.

Project staff identified additional limitations of the project in attaining its objectives. The first of these involved the restricted opportunity to field-test either Volume VI or VII of the Training for Independence series. The first year of the project was spent in documenting the literature, forming the content of in-service programs, identifying the needs and concerns of educators throughout the Commonwealth, and designing a curriculum series which would both support in-service activities and also leave educators with something in writing which would be useful over an extended period of time. As good as the beginnings may have been, and as useful as the curriculum may prove to be, it would still have been desirable to go through a normal developmental procedure common to any undertaking involving the development of a written document. What is particularly

lacking in this instance is the accumulation of comparative developmental data based on results of screening, pretesting, posttesting, and retention testing of trainable mentally retarded students. This will be done on an informal basis throughout the Commonwealth during the 1976-77 school year, but no formal means of summarizing this source of data will be available since the project has now been disbanded. It can only be hoped that State Education Agency personnel will continue to be involved in the dissemination and validation of the curriculum. However, this will be further discussed in Sections 13 and 14 of this report. For those educators involved in a similar undertaking in the future, a word of warning is in order concerning dissemination of any products intended for use by teachers and their aides. In following normal protocol within the educational hierarchy, project materials were disseminated through the mail to Directors of Special Education or their designees within the Intermediate Units. Unfortunately, it was found that this procedure, although in certain respects quite correct, did not always result in the material getting into the hands of those most able to use it. It is highly recommended that if future project staffs want a product to get into the hands of those for whom it was intended, great care be taken in identifying those individuals and disseminating the products directly to them. Because the project was so involved in gathering formative evaluation data and in responding to that data with appropriate changes in operations, many of the weaknesses which were apparent to project staff were eliminated before formal state-mandated ESEA evaluation took place. In some cases, plans for remediation were to be instituted during the third year of the project and, therefore, never realized.

11. CONCRETE PROJECT OUTPUT

This project has been both service-oriented and product-oriented. In terms of services, a great deal of consultation has been given to different educational establishments throughout the state. This report has already mentioned the Intermediate Units that were contacted during the rotating in-service sessions on the prevocational programming ideas. Often in conjunction with these in-service presentations, the local Intermediate Unit staff at whatever location was being served would also avail themselves of the opportunity to discuss specific problems with the project staff. Thus there was a dual dissemination opportunity.

One of the major project outcomes was the completion of the final two volumes of the curriculum document series entitled, "Training for Independence." The first of the last two volumes (Volume VI) is entitled, "Preacademics." The final volume is entitled, "Prevocational Skills." These two volumes comprise a wealth of material for the educator of trainable mentally retarded children to use in a day-to-day fashion in programming for his students. A great deal of curriculum development work by many experts in these two areas of programming for the retarded is contained in these volumes.

Another major occurrence that can be attributed to project activities is the awareness of the importance of more comprehensive vocational analyses in programming for the retarded. Traditionally, most school systems have used a work-study program to implement this vocation objective and have not gone into sufficient depth into three areas of task analysis (the generic, higher-level skills that the student will receive training in; the actual job setting in the field that such training is supposedly related to in a general way; and the student's strengths and weaknesses). Thus, this project has fostered a philos-

ophy of triple task analysis: the job site, the general training activities, and the student himself.

12. DISSEMINATION ACTIVITIES

Among the objectives of the project was to collect, integrate, and disseminate information relating to prevocational instruction of handicapped children. Instruction in related topics was to be presented through an in-service format conducted at the site of the professionals and paraprofessionals who served as a target audience. Information relating to the prevocational education of the handicapped was gathered from a variety of sources to include journals, books, research papers, presentations, monographs, publishers' manuals, on-site visits to demonstration projects, and external consultants. Based on techniques and procedures investigated in the literature, project staff initiated development of a model which would result in a comprehensive prevocational training program for teachers of exceptional students. This model, founded in such well-documented concepts as criterion-referenced measurement, task analysis, and methods-time-measurement techniques (see Section 8 for a further discussion of this industrial engineering system), became the core for subsequent in-service programs.

In-service presentations were made to a variety of audiences at the state, local, and national levels. The majority of training took place within the Commonwealth of Pennsylvania, and was delivered primarily to audiences attending Intermediate Unit in-service activities. Letters introducing the project and describing the services provided by project staff were sent to Directors of Special Education of each Intermediate Unit within the Commonwealth. Attached to these letters of introduction was a request that the Intermediate Unit Directors fill in a brief questionnaire indicating the willingness of that Intermediate Unit to have the project participate in its in-service efforts. Based on information contained in returned questionnaires, participating Inter-

mediate Units were identified. Within a short amount of time, those participating Directors were again contacted to gain further information on topics to be covered during the in-service presentations. Communication of this sort was continued until a plan of presentation satisfactory to both project staff and Intermediate Unit staff was developed. Generally, in-service presentations took two forms:

1) In-service participants received an overview and preliminary exposure to concepts relating to prevocational and home-skills instruction of exceptional children; and
2) Participants received in-depth training in concepts of job analysis, criterion-referenced measurement, and methods-time-measurement procedures.

Often, in-service efforts resulted in the request, on the part of participating Intermediate Units, for follow-up help in the design and implementation of prevocational programming. In the conduct of these functions, various Intermediate Unit staff and representatives of related organizations such as Mental Health/Mental Retardation Base Service Units or Pennsylvania Association for Retarded Citizens were invited to participate in program planning sessions between project staff and Intermediate Unit administrators. During the course of the project, Intermediate Units 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 21, 22, 23, and 26 received in-service and/or consultative services through the project. Other Intermediate Units had expressed the desire to participate with the project in a similar manner, and would have had their needs met if funding had continued during the 1976-77 fiscal year.

As indicated above, project efforts were also disseminated on state and national levels. A listing of organizations includes:

Presentations Within The Commonwealth of Pennsylvania

a) CEC Chapter No. 388 - - March, 1975

b) Montgomery County Intermediate Unit county-wide in-service of teachers of the mentally retarded and physically handicapped - - 1975

c) Summer Consortium Workshops for Vocational Educators; Bloomsburg State College - - May, 1975 and 1976

d) Pennsylvania State University - - June, 1975 and 1976

e) State-wide Invitational Conference on Vocational Assessment for Supervisors and Trainers of TMR STudents; Boiling Springs, Pa. - - June, 1975 and 1976

f) Pennsylvania Federation CEC Annual Convention; Pittsburgh, Pa. - - November, 1975

g) Pennsylvania's Intermediate Unit Fourth Annual Spring Conference; Harrisburg, Pa. - - March, 1976

h) LaSalle College Undergraduate Student Teachers; Philadelphia, Pa. - - March, 1976

i) Field-Base Training Models in Education; Kutztown, Pa. State College - - May, 1975

Papers Presented at Professional Conferences:

a) Annual Meeting of AAMD; Portland, Oregon - - May, 1975

b) Region IX AAMD Meeting; Silver Springs, Md. - - November, 1974

c) Invitational Conference on Programming for Severely and Profoundly Handicapped; Kansas City, Mo. - - November, 1974

d) President's Committee on Employment of the Handicapped; Washington, D. C. - - May, 1975 and 1976

Continued refinement of the in-service model eventually led to identification of a need for curriculum in the area of prevocational and home skills. Within the referred-to model, home skills, prevocational training, and vocational placement were all related by means of using task elements common to industry and education. In order to support in-service efforts and to facilitate prevocational instruction throughout the Commonwealth of Pennsylvania, a curriculum was developed by project staff which incorporated these elements (for a further description of the curriculum, see Section 7 of this report). This curriculum was field-tested and, in final draft form, printed as Volume VII of the Training for Independence curriculum initially begun under the auspices of the Title III Project, "Curricular Reorganization of TMR Classes." This program, together with a companion document of preacademic skills curriculum, was disseminated to educators throughout the Commonwealth of Pennsylvania during the early fall of 1976. Distribution was made on the basis of trainable mentally retarded population presently being served by each Intermediate Unit. Had project funding continued under Title III, additional validation of the curriculum through data collection and analysis would have been undertaken.

13. CONTINUATION OF PROJECT ACTIVITIES AFTER CESSATION OF PROJECT FUNDS

When it became apparent that Title III was ending as a funding source, project staff felt that the goals and objectives of the project were important enough to seek other avenues of funding. As indicated in other sections of this report, the State Department of Education was very involved and interested in seeing the completion of all project objectives. Therefore, they supported the project's efforts to find a new basis for funding. Since representatives of the Bureau of Education for the Handicapped (BEH) were familiar with products developed by project staff and had been quite supportive during their visits to the Montgomery County Intermediate Unit, a proposal was written to apply for funds available through BEH. The proposal was accepted in March of 1976 and funding of the new project began in June of that year.

The new project (THOR, or "Training Habilitators of the Retarded") is designed to continue in-service training of personnel working with exceptional children throughout the Commonwealth and will be involved in further refinement and continuation of curriculum development for these educators. The in-service programs have been refined and reflect various components of in-service procedures piloted during the Outreach (still another project) Project referred to in various sections of this report. The idea of offering in-service on the basis of granting graduate level credits leading to certification, proved to be a successful inducement for full participation in the in-service sessions and continues within the new project. It is realized that this is a rather unique continuation of the project and is also temporary in nature. However, the original project, "A Model for TMR Employment", should make a lasting contribution, primarily in terms of the knowledge imparted to teachers through its in-service activities and specifically through the use of the products it has disseminated to these educators.

14. EFFORTS BY OTHER AGENCIES TO ADOPT OR ADAPT PROJECT ACTIVITIES

Throughout its existence the project made extensive efforts to impact as many Intermediate Units throughout the Commonwealth of Pennsylvania as was practically possible. In this regard, extensive training was conducted on Intermediate Unit sites, as well as in nonpublic agency locations. Along with such training activities, the two extensive curriculum guides (Volumes VI and VII of the series, Training for Independence) were disseminated to both public and nonpublic agencies. The guides were handed out in conjunction with the training activities in the hope that local educational staff would modify the materials and techniques as best fitted their local setting. In addition, extensive consultation at the local educational agency (LEA) level was carried out at the same time that the formal training activities occurred; this type of consultation facilitated the LEA staff's modification of such materials and techniques. Thus, it is felt that adaptation of this project's efforts did occur to a notable degree.

APPENDIX A - 1

INFORMATIONAL RESOURCES

FOR CONDUCTING LITERATURE SEARCH

Source Code	Major Resources
AE	American Education
AERJ	American Education Research Journal
AJMD	American Journal of Mental Deficiency
AJOT	American Journal of Occupational Therapy (The)
AP	Journal of Applied Psychology
ASE	American Secondary Education
AVJ	American Vocational Journal
BS	Behavior Science
BT	Behavior Therapy
DA	Dissertation Abstracts
DI	Dissertation Abstracts International
DP	Developmental Psychology
ER	Educational Research
ETMR	Education and Training of the Mentally Retarded
EXC	Exceptional Children
FEXC	Focus on Exceptional Children
IAVE	Industrial Arts and Vocational Education
IEI	Industrial Education
ILRR	Industrial and Labor Relations Review
JABA	Journal of Applied Behavior Analysis
JAP	Journal of Abnormal Psychology
JCP	Journal of Counseling Psychology
JEC	Journal of Employment Counseling
JEE	Journal of Experimental Education
JHE	Journal of Home Economics
JHR	Journal of Human Resources
JMS	Journal of Mental Subnormality
JMT	Journal of Music Therapy
JSBS	Journal of Applied Behavior Science
JSE	Journal of Special Education
JVB	Journal of Vocational Rehabilitation
JVEG	Journal of Vocational and Educational Guidance
MNPW	Manpower
MR	Mental Retardation
MST	Man/Society/Technology-Journal of Industrial Arts Education
NASS	National Association of Secondary School Principals Bulletin
OP	Occupational Psychology
P	Pointer
PC	Pacesetters
PGJ	Personnel Guidance Journal
PM	Psychological Monographs
RJ	Journal of Rehabilitation
RL	Rehabilitation Literature
RR	Rehabilitation Record
SE	Journal of Secondary Education
SEMR	Journal for Special Educators of the Mentally Retarded (Digest of the MR)
SLC	Slow Learning Child (The)

SPE	Special Education
SS	School Shop
TEXC	Teaching Exceptional Children
TSB	Training School Bulletin
VGQ	Vocational Guidance Quarterly

Supplementary Resources

Supplementary Journals can be added on to the list when found. Please be sure that when you add a number to the supplementary list, either Philip or Edmund must be told so that the master list can be revised and no duplication of codes will exist:

J1	Practical Forecast for Home Economics
J2	Devereau School Forum
J3	M.R. Highlighter
J4	N.E.A. Journal
J5	New York State Education
J6	Parks and Recreation
J7	Psychological Reports
J8	Psychology Today
J9	Rehabilitation Counseling Bulletin
J10	Journal of the Quebec Psychological Association
J11	Journal of the American Medical Association
J12	Mental Hygiene
J13	Mental Retardation Abstracts
J14	Elementary School Journal
J15	Elementary School Guidance Journal
J16	Forward Trends
J17	Illinois Journal of Education
J18	Information Bulletin
J19	Intellectually Handicapped Child
J20	Journal of Applied Rehabilitation Counseling
J21	California Education
J22	Children Today
J23	Clearinghouse
J24	Curriculum Bulletin
J25	Education Digest
J26	Education of Exceptional Children
J27	Education and Psychological Measurements
J28	Education of the Visually Handicapped
J29	Arizona Teacher
J30	Australian Journal of Mental Retardation
J31	Canada's Mental Health
J32	Adolescence
J33	Agriculture Education Magazine
J34	American Journal of Orthopsychiatry
J35	Rehabilitation in Australia
J36	Review of Educational Research
J37	School Management
J38	Special Education in Canada

J39	Teaching and Training
J40	School Counselor
J41	U.S.U. Special Educator
J42	Virginia Journal of Education
J43	Vocational Rehabilitation in Australia
J44	New Outlook for the Blind
J45	Project News of the Parsons State Hospital and Training Center
J46	Academic Therapy Quarterly
J47	Education
J48	Training and Development Journal
J49	Rehabilitation Counseling Bulletin
J50	Perceptual and Motor Skills Guide
J51	Journal of Rehabilitation for the Deaf

Publisher's Code
Government Agencies

DHEW	Department of Health, Education and Welfare
DVR	Division of Vocational Rehabilitation
GAK	Arkansas State Department of Education
GAL	Alaska State Department of Education
GCAL	California State Department of Education
GDL	United States Department of Labor
GEDM	Department of Education-Edmonton
GFA	Florida State Department of Education
GGA	Georgia State Office of Vocational Rehabilitation
GIND	Indiana Department of Public Instruction
GIO	Iowa State Department of Education
GLOU	Louisiana State Department of Hospitals
GMO	Missouri State Department of Education
GMSP	Mississippi State Department of Education
GNC	North Caroline State Department of Mental Health
GNJ	New Jersey State Department of Education
GNM	New Mexico State Department of Education
GNY	New York State Education Department
GOH	Ohio Department of Education
GPA	Pennsylvania Department of Education
GPNS	PENNscript
GPO	United States Government Printing Office
GSD	South Dakota Department of Public Instruction
GSEP	Pennsylvania State Employment Service
GSRE	Southern Regional Education Board
GTX	Texas Education Agency
GVG	Virginia State Department of Education
GWIC	Western Interstate Commission for High Education
GWS	Wisconsin Department of Public Instruction
GWV	West Virginia State Board of Vocational Education
OEO	Office of Educational Opportunities
OEP	Office of Education Publications
RRCP	Regional Resource Center of Eastern Pennsylvania for Special Education
GORE	Oregon State Department of Education
USOE	DHEW
GCON	Connecticut State Department of Education
GSCR	South Carolina Vocational Education Research Coordinating Unit
GTNS	Tennessee State Department of Education
GND	North Dakota State Department of Public Instruction
GRI	Rhode Island Department of Education
GCAN	Canadian Rehabilitation Council
GOBV	Ohio Bureau of Vocational Rehabilitation
ERIC	ERIC
GMI	Michigan State Department of Education
GNYI	New York State Interdepartmental Health and Hospital Council on MR

University Printers

UBSC	Boston College
UCAS	California State College
UCHC	University of Chicago Press
UCOL	Columbia University (Teacher's College Press)
UCTH	Catholic University
UILL	Illinois University
UILS	Illinois State University
UIND	Indiana University
UJCS	Jersey City State College
UKAN	University of Kansas
UMAR	University of Maryland
UMIN	University of Minnesota
UMKS	Mankato State College
UNEV	University of Nevada
UNYU	New York University
UOKS	Oklahoma State University
UORE	University of Oregon
UPIT	Pittsburgh University
UPUR	Purdue University
USBF	State University at Buffalo
USIL	Southern Illinois University Press
USTN	Stanford University Press
USYR	Syracuse University
UTXS	University of Texas Press
UUTS	Utah State University
UWIS	Wisconsin University
UWYS	Wayne State University
UARK	University of Arkansas
UPRC	Puerto Rico University
UABC	Abilene Christian University
URTG	Rutgers University
UINS	Indiana State University
UMHS	Michigan State University
UBSU	Boston University
USDU	South Dakota University
UGRC	George Peabody
UTXT	Texas Tech.
USFL	University of South Florida
UIOW	Iowa University

Private Agency Publishers

Y001	American Institute for Research
Y002	American Personnel and Guidance Association
Y003	Council for Exceptional Children
Y004	Devereaux Foundation
Y005	Exceptional Children's Foundation
Y006	Federation Employment and Guidance Service
Y007	Human Resources Center
Y008	Institute for the Crippled and Disabled
Y009	Jewish Vocational Service
Y010	National Association for Retarded Children (citizens)
Y011	AFL-CIO
Y012	ACLD
Y013	Appalachian Education Laboratory
Y014	American Rehabilitation Counseling Association
Y015	Children's Village, Dobbs Ferry, New York
Y016	AERA
Y017	Curative Workshop of Milwaukee
Y018	National Schools Public Relations Association
Y019	Parents and Friends of Mentally Retarded Children of Bridgeport, Inc.
Y020	International Film Board
Y021	A.A.M.D.
Y022	National Institute of Mental Health
Y023	American Vocational Service
Y024	National Association of Sheltered Workshops and Homebound Programs
Y025	Ford Foundation
Y026	National Technical Information Service
Y027	Educational Testing Service

Publishing Houses

01FC	Finney Company
02JD	John Day Company
03FR	Fearon Publishers
04MX	Mafex Associates
05LL	Laubach Literacy
06SM	Scholastic Magazine
07SR	Science Research Associates
08SS	Special Service Supply
09PL	Project Lighthouse
10AM	Ardelle Manning Productions
11GP	Gryphon Press
12SC	Special Child Publications
13CT	Charles C. Thomas
14MH	McGraw Hill Book Company
15TA	Transatlantic Arts Inc.
16FL	Follett Publishing Company
17OU	Oxford University Press
18ET	Educational Technology Publications
19PS	F. Porter Sargent Company
20IP	Interstate Printers and Publishers Inc.
21DM	David McKay Company
22HM	Houghton Mifflin Company
23MI	M.S.S. Information Corporation
24JB	Jossey-Bass Inc.
25HR	Holt-Rinehard and Winston Inc.
26MM	McKnight and McKnight Publishing Company
27UL	University of London Press
28NR	New Readers Press
29MJ	Michael Jackson Publishing
30PP	Parker Publishing Company
31AS	E.J. Arnold and Son
32PE	Paul S. Ericksson Company
33AP	Abingdon Press
34WL	Westinghouse Learning Corporation
35AB	ABT Associates
36MC	MacMillan Publishing Company
37VD	Vanderburgh School Corporation
38PR	Pergamon Press
39BS	Bannerstone House
40TS	Tyco Shipping Service
41JD	J.M. Dent and Sons

School System and District Publishers

Q001	Abington School District
Q002	Adams County Public Schools
Q003	Albuquerque Public Schools
Q004	Altoona Area School District
Q005	Arizona Children's Colony
Q006	Austin Independent School District
Q007	Board of Education of the City of New York
Q008	Bradford and Sullivan County Schools
Q009	Brevard County Exceptional Education Department
Q010	Broward County Board of Public Instruction
Q011	Bucks County Public Schools
Q012	Buffalo Public Schools
Q013	Cambria County Board of School Directors
Q014	Caswell Center
Q015	Chattanooga Public Schools
Q016	Chester County Schools
Q017	Chicago Board of Education
Q018	Cobb County School System
Q019	Colonial Northampton Intermediate Unit
Q020	Columbus Ohio Schools
Q021	Dearborn Public Schools
Q022	Dekalb County School System
Q023	Deptford Township Public Schools
Q024	Detroit Board of Education
Q025	District of Columbia Public Schools
Q026	East Orange Board of Education
Q027	Edward R. Johnstone Training and Research Center
Q028	Elwyn Institute
Q029	Eugene Public Schools
Q030	Everett School District #2
Q031	Fayette County Public Schools
Q032	Franklin County Schools
Q033	Frensno City Unified School District
Q034	Galena Park Schools
Q035	Grossmont Union High School District
Q036	Hamilton County Public Schools
Q037	Harrisburg City Schools
Q038	Hillsborough County Public Schools
Q039	Houston Public Schools
Q040	Idaho School District #25
Q041	Independent School District #834
Q042	Indiana County Public Schools
Q043	Kansas City Public Schools
Q044	Kern County Schools
Q045	LaGrange Area Department of Special Education
Q046	Lincoln Public Schools
Q047	Long Beach Unified School District
Q048	Los Angeles City Schools
Q049	Lowell Joint School District
Q050	MacDonald Training Center
Q051	Marion Community Schools

Q052	Minneapolis Public Schools
Q053	Minnesota Public Schools
Q054	Montgomery County Intermediate Unit
Q055	Montgomery County Public Schools
Q056	Northeastern Educational Intermediate Unit
Q057	Oak Ridge Schools
Q058	Oakland Unified School District
Q059	Occupational Center of Essex County
Q060	Philadelphia Public Schools
Q061	Pomona Unified School District
Q062	Portland Public Schools
Q063	Prince George County Public Schools
Q064	San Diego County Public Schools
Q065	Santa Ana School District
Q066	Santa Barbara City Schools
Q067	Seattle Public Schools
Q068	Shelby County Schools
Q069	Southern Wisconsin Colony and Training School
Q070	St. Louis County Schools
Q071	Stockton Unified School District
Q072	Syracuse City School District
Q073	Tangipahoa Parish School Board
Q074	Tennessee School for the Deaf
Q075	Training School at Vineland
Q076	Tulsa Public Schools
Q077	Vanguard School
Q078	Ventura Union High School District
Q079	Vigo County Schools
Q080	Warren and Elk County Schools
Q081	Warrensville Heights City Board of Education
Q082	Warwick School District
Q083	Washington County Schools
Q084	Washington Unified School District 201
Q085	Wayne Pike Vocational School
Q086	West Shore District
Q087	Winston-Salem/Forsythe County Schools
Q088	Laradon-Hall
Q089	Baltimore City Schools
Q090	Salt Lake City
Q091	Livonia, Michigan Public Schools
Q092	Aurora Board of Education
Q093	Santa Cruz Office of Education
Q094	Hartford Public Schools
Q095	Columbia County School Board - Lake City Florida
Q096	East Windsor School District - Hightown, New Jersey
Q097	Haywood City School District
Q098	Merimack Valley School District
Q099	Curriculum Bulletin
Q100	Des Moine - North Schools
Q101	Duval County Schools
Q102	Miami, Florida Department of Special Education
Q103	American School for the Deaf
Q104	Winfield State Training School
Q105	Fargo Public Schools

Q106	Lexington School for the Deaf
Q107	Toronto Board of Education
Q108	Dayton, Ohio Public Schools
Q109	Palm Beach, Florida Schools
Q110	Medford, Massachusetts Public Schools
Q111	Fort Worth Public Schools
Q112	Allegheny County Public Schools
Q113	Marengo H.S. Illinois
Q114	Pittsfield, Massachusetts Public Schools
Q115	Sarasota County Vo-Tech Center
Q116	Ottawa Board of Education
Q117	Big Spring Independent School District - Texas
Q118	Lt. Joe Kennedy School for Exceptional Children
Q119	Springfield, Illinois Public Schools
Q120	Champaign Public Schools
Q121	Oakland County Schools, Pontiac, Michigan
Q122	Los Angeles County Schools
Q123	Johnstone Training and Research Center, Bordentown, New Jersey

APPENDIX A - 2

LITERATURE SEARCH COVER SHEET

COVER SHEET

1-8	Reference Code	- - - - - - - -
9-15	Author	- - - - - - -
16	Number of Authors	-
17-29	Title	- - - - - - - - - - - - -
30-33	Journal or Publishers Code	- - - -
34-35	Month	- -
36-37-38	Year	- - -
39-43	Volume, Number	- - - - -
44-47	Pages	- - - -
48	Type of Report	-
49	Type of Program	-
50	ELSC	-
51	Treatment Group	-
52	Age	-
53	I.Q.	-
54-55-56	Instrument	- - -
57	Environment	-
58	Geographic	-
59	Reading	-
60	Communication Skills	-
61	Math	-
62	Social Interaction	-
63	Socially Acceptable Behavior	-
64	Research Design	-
65	Design Classification	-
66-67	N	- -

COVER SHEET (CONTINUED)

68	Assessment	-
69-70-71	Testing of Hypotheses	- - -
72-79	ED number	- - - - - - - - -
80	Specific Job Skills	-

APPENDIX A - 3

LITERATURE SEARCH COVER SHEET EXPLANATION

Cover Sheet Explanation

1-8	1	2	3	4	5-6-7-8
	(T)raining (A)ssessment (G)uidance	(J)ournal (E)D (B)ook (O)ther	(A)bstract (P)roject (A)uthor (O)ther (N)ot	Holdings (A)vailable (N)ot	Unique-Number

9-15 Author

16 Number of Authors

17-29 Title

30-33 Journal or Publishers Code (numerical)

34-35 Month

36-37-38 Year

39-47 Pages (Volume-Number-Page)

48 Type of Report
1. Research
2. Position Paper
3. Critical Review
4. Program Description
5. Literature Review
6. Historical Perspective
7. Follow-up
8. Rationale for further research
9. Related Instructional

49 Type of Program
1. Academic
2. Avocational
3. Prevocational
4. Vocational
5. 1 + 2
6. 1 + 3
7. 1 + 4
8. 2 + 3
9. 2 + 4
A. 3 + 4
B. Mixed
C. Unclassifiable

50 Entry Level Skill Criterion ELSC
1. Skills given
2. Skills assumed
3. 1 + 2

51 Treatment Group (population)
1. TMR
2. EMR
3. Other Handicapped (excluding physically)
4. Normal
5. 1 + 2
6. 1 + 3
7. 1 + 4
8. 2 + 3
9. 2 + 4
A. 3 + 4
B. Mixed
C. Unclassifiable

52 Age
1. Preschool
2. Elementary
3. 12 to 15
4. 16 to 21
5. 22 and over
6. Mixed

53 I.Q.
1. Below 20
2. TMR (20-50)
3. EMR (50-80)
4. Slow Learner (80-90)
5. Normal
6. 2 + 3
7. 2 + 4
8. 2 + 5
9. 3 + 4
A. 3 + 5
B. 4 + 5
C. Mixed or other

54-55-56 Instrument
***See Individual Evaluation Instruments Code
1-53

57 Environment
1. Public/Private Day School
2. Institution
3. Workshop/Training Center
4. Business/Industry
5. Home
6. Other
7. Unclassifiable
8. Work Study
9. Any educational Environment

58 Geographic Area
1. Inner City
2. Urban
3. Suburban
4. Small town
5. Rural
6. Other/Unclassifiable

59 Reading
1. Naming/Survival Words
2. Minimal Reading Skills (to grade 2)
3. Reading Skills (to grade 6)
4. Reading Skills (above grade 6)
5. Unclassifiable

60 Communication Skills
1. Little or none
2. Minimal oral understanding
3. Minimal writing
4. Good oral skills necessary
5. Good writing skills necessary
6. 2 + 3
7. 4 + 5
8. Unclassifiable

61 Mathematics
1. Simple (counting, time, excluding addition, subtraction and money)
2. Simple (including addition subtraction and money)
3. High Order (multiplication division)
4. Complex
5. Unclassifiable

62 Social Interaction
1. Little or no interaction
2. Interaction necessary for job

63 Socially Acceptable Behavior
1. Not required, work isolated
2. Minimal degree, visible to employer
3. Necessary, visible to general public

64 Research Design
1. Simple Treatment-one or more groups or one or more subjects receiving one level of a treatment factor.
2. Multiple Simple Treatment-two or more groups receiving different levels of a single treatment factor.
3. Simple Treatment and Simple Control-one or more groups receiving level(s) of a single treatment factor and one or more groups experiencing no experimental intervention.
4. Complex Treatment-two or more groups receiving level(s) of more than one treatment factors.
5. Complex Treatment and Simple Control-two or more groups receiving level(s) of different treatment factors and one or more groups experiencing no experimental intervention.
6. Simple Treatment and Complex Control-one or more groups receiving levels of a single treatment factor and one or more groups receiving non-treatment experimental intervention may absorb present.
7. Complex Treatment and Complex Control-two or more groups receiving level(s) of different treatment factors and one or more groups receiving non-treatment experimental intervention. One or more groups receiving no experimental intervention may also be present.
8. Survey Research
9. Behavior Modification

65 Research Design Classification
1. Pre-experimental
2. Quasi-experimental
3. Experimental
4. Descriptive

66 Number of Experimental Groups
1.
2.
3.
4.
5.
6.
7.
8.
9.
A.
B.
C.

67 Average N per T Group
1. 1 to 10
2. 11 to 20
3. 21 to 30
4. over 30

68 Assessment
1. Standardized Instrument(s)
2. Normalized
3. Adapted Research Instrument(s)
4. Original Research Instruments
5. Observation
6. Criterion Referenced Measurement
7. Performance Standards

69 Number of distinct hypotheses
1.
2.
3.
4.
5.
6.
7.
8.
9.
A. 10
B. 11
C. 12 or more

70 Number of hypotheses supported by significant results
1.
2.
3.
4.
5.
6.
7.
8.
9.
A 10.
B 11.
C 12.

71 Least conservative alpha level used to test a hypothesis
1. less than .01
2. .01
3. between .01 and .05
4. .05
5. greater than .05

72-79 ED Number

80 Specific Job Skills
0 Yes
1 No

APPENDIX A - 4

SAMPLE LITERATURE

SEARCH COVER SHEET

AND SAMPLE ABSTRACT

COVER SHEET

1-8	REFERENCE CODE	TJP_____
9-15	AUTHOR	GOLD M_
16	NUMBER OF AUTHORS	I
17-29	TITLE	FACTORS AFFEC
30-33	JOURNAL OF PUBLISHERS CODE	__MR
34-35	MONTH	12
36-38	YEAR	973
39-43	VOLUME, NUMBER	_11-6
44-47	PAGES	0041
48	TYPE OF REPORT	1
49	TYPE OF PROGRAM	4
50	ELSC	3
51	TREATMENT GROUP	11
52	AGE	6
53	I.Q.	12
54-56	INSTRUMENT	UNC
57	ENVIRONMENT	3
58	GEOGRAPHIC	6
59	READING	5
60	COMMUNICATION SKILLS	2
61	MATH	5
62	SOCIAL INTERACTION	1
63	SOCIALLY ACCEPTABLE BEHAVIOR	2
64	RESEARCH DESIGN	2
65	DESIGN CLASSIFICATION	2
66-67	N	22
68	ASSESSMENT	7
69-71	TESTING OF HYPOTHESES	22__
72-79	ED NUMBER	_____
80	SPECIFIC JOB SKILLS	0

FOR BOTH GROUPS, WORKERS WERE FIRST TRAINED TO ASSEMBLE A BICYCLE BRAKE. THEY WERE BROUGHT TO A CRITERION OF 6 CORRECT ASSEMBLIES OUT OF 8 CONSECUTIVE TRIALS PRIOR TO PRODUCTION. THE TRANSITION WAS THEN MADE FROM THE USE OF FLAT TRAYS TO USE OF PRODUCTION BINS AND WERE BROUGHT TO CRITERION OF 2 CORRECT ASSEMBLIES CONSECUTIVELY: THE EXPERIMENTER DID NOT SIT OR INTERACT (62.1) WITH WORKERS DURING THE PRODUCTION PERIOD. THE ONLY VERBAL REINFORCEMENT (60.2) WAS A THANK YOU AT THE END OF A SESSION.

68.7 RESULTS SHOW THAT MEAN PRODUCTION FOR THE 1 HOUR GROUP WAS 24.9 WITH A MEAN ERROR RATE OF 1.58 AND THAT MEAN PRODUCTION FOR THE 3 HOUR GROUP WAS 20.35 WITH A MEAN ERROR RATE OF .39.

THE AUTHOR FEELS THAT THE OBTAINED BASE RATE WAS VERY CONSERVATIVE, SINCE THE ESTABLISHMENT OF SAID RATE DID NOT CONFORM WITH INDUSTRIAL EFFICIENCY PROCEDURES. GOLD FEELS THAT THE TASK IS INTRINSICALLY REINFORCING, AND THEREFORE THERE IS NO NEED FOR EXTERNAL REINFORCEMENT.

ACCORDING TO GOLD, THE DATA SUGGEST THAT THE MENTALLY RETARDED ARE CAPABLE OF PRODUCING QUALITIVELY AND QUANTITIVELY AT A LEVEL FAR ABOVE WHAT IS PRESENTLY FOUND, EVEN IN THE ABSENCE OF CONVENTIONAL REINFORCEMENT SYSTEMS.

65

GOLD, M.W. "FACTORS AFFECTING PRODUCTION BY THE RETARDED: BASE RATE." MENTAL RETARDATION 1973, 11:6, 41-45

THE PURPOSE OF THE STUDY WAS TO OBTAIN BASE-RATE DATA (NON-REINFORCED PRODUCTION) ON MODERATELY AND SEVERELY RETARDED INDIVIDUALS PRODUCING A COMPLEX ASSEMBLY. A COMPLEX ASSEMBLY, IN THIS STUDY, IS DEFINED AS ONE FOR WHICH A RETARDED INDIVIDUAL REQUIRES INDIVIDUALIZED AND EXTENSIVE TRAINING IN ORDER TO PERFORM THE ASSEMBLY. TWO SEPARATE BASE-RATE STUDIES WERE CONDUCTED: A ONE HOUR STUDY IN WHICH 20 WORKED 1 HOUR PER DAY FOR 10 DAYS AND A 3 HOUR STUDY IN WHICH 16 PARTICIPATED 3 HOURS A DAY FOR 10 DAYS

THE ONE HOUR GROUP CONSISTED OF 20 SUBJECTS WITH A C.A. RANGE OF 17 TO 39 AND A MEAN OF 25. I.Q. RANGE WAS 25-97 WITH A MEAN OF 50.4 (2 PARTICIPANTS HAD I.Q.'S OF 87 AND 97). THE 3 HOUR GROUP CONSISTED OF 16 SUBJECTS WITH A C.A. RANGE OF 15.8 TO 37.5 WITH A MEAN OF 24.7 I.Q. RANGE WAS 33 TO 67 WITH A MEAN OF 46.7. PARTICIPANTS WERE ALL SHELTERED WORKSHOP ENROLLEES.

APPENDIX B

SYNOPSIS OF LITERATURE REVIEW

General: Job success for T.M.R. has received little attention in the literature; however, bourgeoning programs have revealed (primarily through personal contacts) some successful placements in competitive employment situations, especially with some pretraining and on the job training..

Assessment of Prevocational Evaluation, Vocational Training and Placement Techniques: Assessment andplacement techniques, as revealed by the literature, fall into two categories-formal and informal. Literature dealing primarily with E.M.R. and other handicapped populations reveals formal assessment techniques in the form of work sampling (e.g., Jewish Education Vocational Services battery and the Tower System) and interest inventories or competency scales (e.g., San Francisco Vocational Competency Scale and a newly developed, soon to be published vehicle from the University of Oregon Vocational Rehabilitation Center). Informal assessment and placement techniques are often utilized by work-study coordinators and workshop supervisory in an attempt to match individuals to jobs.

Literature Related to Fields of Industrial Engineering and Industrial Psychology: A most interesting area of research is predetermined time systems and their use with the handicapped. Basic motions from predetermined times systems such as Methods-Time Measurement (MTM) have been utilized with: physically handicapped individuals to evaluate their ability to do specific movements or the environmental adjustments which could be made if the needed movements cannot be performed. (Spilling, O.R., 1970); mentally handicapped to determine difficulty of task adaption and learning (Grant, Moores, Whelan, 1974); and blind To Determine New Products Suitable for Blind Workers (Maynard Research Council, no date). These systems can be used both as predictors and assessments of standard to performance.

Current Training Practices in Rehabilitation Literature: Innovative programs for training are evident in rehabilitation; exemplifying these is the INA Mend Institute in Albertson, N.Y., which utilizes an industrial advisory council to indicate what product changes will be made in the near future in order to properly train workers at the institute.

Existing Methods and Materials for Training TMR Students for Work: Relatively few reported methods and materials for training were geared to the T.M.R. population; however, the Vocational Education/Special Education Program Guide (Central Michigan Univ., 1973) is illustrative of the occupational cluster approach which generalizes a group of skills to many applicable occupations. Also Vocational Instructional Materials for Students with Special Needs (Towne and Wallace, 1972) is an ongoing project dealing with materials.

Other Projects Funded through Vocational Education and Other Public Resources: This area revealed many projects involved in experimental vocational programming for T.M.R. some of which have already been cited. On a statewide basis, letters and personal visits have found a few programs which are working toward competitive employment for TMR Children. Some of these locations include the Simon Muir School in the Philadelphia Area, the Montgomery County Western Voc-Tech School, Four District Consortium Senior High School Classes located within Montgomery County, a high school class within Upper Dublin School District in Montgomery County, and a special federal TMR project sponsored by Bucks County Intermediate Unit 22.

Related Resources and Materials: Very few publishers or manufacturers are supplying items specifically for T.M.R. Some lower level Career Awareness Series (e.g., "Real People At Work", Changing Times Education Service) appear to have promise with second and third grade level readers.

Task Analysis Approaches: Task analysis techniques have been reviewed and the literature points out new approaches with some merit such as the Handbook for Analyzing Jobs (U.S. Government Publication) which uses "method verbs" in a cross categorized fashion for occupational fields, e.g., "brushing" may be used in 20 different occupations.

Methods of Success Reinforcement: Techniques which have received much use and have been reported in many research studies are token systems and various other behavior modification techniques. In some studies environment was cited as very important. In some of the studies reviewed the use of real money was a very strong reinforcer.

APPENDIX C

WORK FIELD ORGANIZATION

The Work Fields, as listed below, have been organized into groups on the basis of similar technology, or overall socioeconomic objective.

ORGANIZATION	DESCRIPTION
006 Gardening	Securing, producing, or cultivating raw materials, products, or animals (livestock or game) on or below the surface of the earth; usually outdoor work.
011 Loading-Moving 012 Hoisting-Conveying	Moving materials (in solid, liquid, or gaseous form) or people, by hand and/or machine power.
031 Cleaning 032 Ironing 033 Lubricating 034 Butchering	Cleaning and maintenance work.
041 Filling 042 Packing 043 Wrapping	Packaging materials or products for distribution or storage.
051 Abrading 052 Chipping 053 Boring 054 Shearing-Shaving 055 Milling-Turning-Planing 056 Sawing	Working with machines and/or hand-tools to cut or shape wood, metal, plastics, or other materials, or objects made from these materials. Can also involve assembly of objects.
061 Fitting-Placing 062 Folding-Fastening 063 Gluing	Assembling materials, usually light.
071 Bolting-Screwing 072 Nailing	Assembling part or materials, usually of metal, wood, or plastics, by means of screws, nails, or rivets.
083 Soldering	Bonding or cutting materials by means of a gas flame, electric arc, combination welding process, or soldering.
091 Masoning 092 Laying 093 Troweling 094 Calking	Working with brick, cement, mortar, stone, or other building materials (other than wood) to build or repair structures, or to assemble structural parts.
101 Upholstering 102 Structural Fabricating-Installing-Repairing 111 Electrical Fabricating-Installing-Repairing 112 Electronic Fabricating-Installing-Repairing 121 Mechanical Fabricating-Installing-Repairing 122 Electro-Mechanical Fabricating-Installing-Repairing	All-round fabricating, installing, and/or repairing of interior fittings; structures; and electrical, electronic, and mechanical units. Involves combinations of other Work Fields, usually 051 through 094.

ORGANIZATION	DESCRIPTION
131 Melting 132 Casting 133 Heat Conditioning 134 Pressing-Forging 135 Die Sizing 136 Molding	Compounding, melting, heat conditioning, and shaping metal and plastics, by any method in which heat is a factor.
141 Baking-Drying 142 Crushing 143 Mixing 144 Distilling 145 Filtering-Srtaining-Separating 146 Cooking-Food Preparing 147 Processing-Compounding	Processing various materials, in solid, fluid, semi-fluid, or gaseous states, during production process or to prepare for for distribution.
151 Immersing-Coating 152 Saturating 153 Brushing-Spraying 154 Electroplating	Coating or impregnating materials and products to impart decorative or protective finish or other specific quality, as described under separate Work Field sections.
161 Combing-Napping 162 Spinning 163 Winding 164 Weaving 165 Knitting	Processing fibers from thread to fabric.
171 Sewing-Tailoring	Joining, mending, or fastening materials with needle and thread, and fitting and adjusting parts.
211 Appraising 212 Weighing	Evaluating or estimating the quality, quantity, or value of things or data; ascertaining the weight of materials or objects.
221 Stock Checking	Receiving, storing, issuing, shipping, requisitioning, and accounting for stores of materials.
291 Accommodating 294 Healing-Caring	Dealing with people to provide services of various types.

Source: U. S. Department of Labor Handbook For Analyzing Jobs, Washington, D. C., Superintendent of Documents, 1972.

APPENDIX D

TASK ANALYSIS FORMAT

DESIGNED BY CURRENT PROJECT

TASK: _____

ENTRY LEVEL SKILLS:

CONCEPT AREAS:

PREPARATION AND METWA:

SETTING:

GENERAL INSTRUCTIONS:

DECISION POINT AID:

METHOD VERBS: (alphabetically)

TASK SPECIFIC VERBS:

ACTIVITY SEQUENCE:

APPENDIX E

LIST OF METHOD VERBS

Baking						
Basting	146-1	171-1				
Beating	031-2	134-1				
Blending	143-2					
Boiling	144-1	146-2	147-2	152-2		
Broiling						
Brushing(see painting)	031-4	032-1	051-1	063-1	093-1	132-2
Carving						
Chipping	031-5					
Chopping	002-2					
Clamping	061-4	063-2	071-1	102-6		
Cooling	133-3	144-7				
Covering(see spreading)	043-2					
Cracking(egg)						
Cutting	034-1					
Darning						
Digging	003-9	011-2	012-1			
Diluting						
Dissolving	143-3					
Draining	145-5	151-2				
Drilling						
Driving(see hammering)	011-5	072-1				
Drying						
Dumping	011-6	012-4	041-3	131-5	151-3	
Dusting	003-12	031-6	033-1	154-2		
Filing	051-3					
Fluffing	031-7	141-5				
Flushing	031-8	034-2				
Folding	042-3	043-4	061-7			
Frying	146-7					
Glazing	102-9					
Gluing	092-2					
Grading	006-4	093-5				
Grating						
Grinding	051-4	142-3				
Hammering	061-8	063-5	072-2	094-1	134-11	
Hanging	011-9	061-9				
Heating	083-3	131-10	133-5	144-14	145-8	146-8 147-7
Hosing	031-9					
Ironing						

Kneading	132-6	134-13	136-3	142-5	146-9		
Knotting	062-7						
Laundering							
Mashing	142-6						
Matching	092-4	153-4	221-5				
Measuring	053-2	055-4	056-6	061-15	083-4	092-5	101-2→
Melting	083-5	144-16		←102-13	122-5	135-4	173-5
Mixing	153-5						
Mopping	031-11						
Mowing	006-7						
Oiling	033-4						
Painting							
Patching	092-7	093-9	171-10				
Peeling	054-4						
Pinning	071-3	221-8					
Planting	003-24	006-8					
Poaching							
Polishing							
Potting	003-26	006-9					
Pouring	131-13	132-8	135-5				
Pruning	003-27	006-11					
Prying(open)	102-17						
Putting							
Puttying	094-2						
Raking	006-12						
Rinsing	152-6						
Roasting	141-7	146-14	147-13				
Rolling	011-13	062-13	092-10	134-17	135-9	136-10	142-10→
Rubbing	032-4	051-8	083-6	153-7	←146-15 294-15	151-5	153-6
Sanding(sandpapering)	051=9						
Sawing	002-4	034-7					
Scalding	031-13						
Scraping	012-8	031-14	034-8	051-11	072-4	091-5	093-12→
Screwing	061-20				←094-5	143-7	143-8
Scrubbing	031-15						
Seasoning	141-8	146-16					
Sewing on							
Shaking (out)	031-16	145-11					
Shoveling(see digging)	011-15	012-9	031-17	131-14	144-19		

Shredding							
Shrouding(see covering)	034-10						
Sifting	145-12						
Simmering							
Skimming	131-15						
Soaking	031-18						
Sorting	011-17	221-19					
Sponging	031-20						
Spot cleaning							
Spotting	031-21						
Spreading	063-9	083-8	091-8	092-12	093-15	136-15	146-17 152-8 153-9
Squaring							
Stapling	062-17	072-5					
Steaming	031-22	032-7	152-9				
Stirring	131-16	143-8	145-14	147-14	152-10		
Stitching							
Straining	135-12						
Stripping	034-13	043-18	062-19				
Sweeping	031-23						
Tacking(see hanging)	072-7						
Taking off							
Tasting							
Thawing							
Thinning							
Threading	061-28	062-21	111-9	122-9			
Tightening	061-29	071-4					
Timing							
Toweling dry							
Trimming	006-16	034-14					
Tucking							
Turning down							
Twisting	043-9	061-30	062-22	071-5	111-10	122-10	134-24
Vacuuming							
Washing(dishes)	031-25	034-15	145-15				
Watering(see hosing)	003-37						
Wetting(see hosing)	063-11	093-17					
Wiping	031-26	151-9					
Wringing							

APPENDIX F - 1

BASIC MOTIONS FROM MTM

Apply Pressure (MTM-AP): an application of muscular force during which object resistance is overcome in a controlled manner, accompanied by essentially no motion ($\frac{1}{4}$ inch or less).

Bend (MTM-B): the motion of lowering the body in a forward arc, from standing position, so that the hands can reach to or below the level of the knees.

Crank (MTM-C): the motion of the fingers, hand, wrist and forearm in a circular path, with the forearm pivoting at the elbow.

Disengage (MTM-D): basic hand or finger element employed to separate one object from another where there is a sudden ending of resistance.

Grasp (MTM-G): basic finger or hand element employed to secure control of an object.

Kneel (MTM-KOK and KBK): the motion of lowering the body from erect standing position by shifting one foot forward or backward and lowering.

Move (MTM-M): basic hand or finger motion employed when the predominant purpose is to transport an object to a destination.

Reach (MTM-R): basic hand or finger motion employed when the predominant purpose is to move the hand or fingers to a destination.

Release (MTM-RL): basic finger or hand motion employed to relinguish control of an object.

Position (MTM-P): basic finger or hand element employed to align, orient, and engage one object with another to attain a specific relationship.

Side Step (MTM-SS): a lateral motion of the body, without rotation, performed by one or two steps.

Stand (MTM-STD): the motion of transferring the weitht of the body from the seat and raising the body to an erect standing position.

Stoop (MTM-S): the motion of lowering the body in a forward arc from a standing position, so the hands can reach to the floor.

Turn (MTM-T): the basic motion employed to rotate the hand about the long axis of the forearm(as in turning a key or a lid).

Walk (MTM-W): a forward or backward movement of the body performed by alternate steps.

APPENDIX F - 2

RATIONALE FOR USING

MTM IN SPECIAL EDUCATION

Using Methods-Time Measurement in Vocational Training for the Mentally Handicapped

Methods-Time Measurement (MTM) is a predetermined time system developed by Maynard, Stegementen and Schwab in the early 1940's and published in 1948. It divides manual motions (eg. reach, grasp) into their smallest elements and is currently the most widely used (over 800 U.S. firms) predetermined time system. MTM is not a proprietary system; the International MTM Directorate through National MTM Associations conducts research and administers examinations for practitioners and instructor qualifications. Research with handicapped individuals and MTM is becoming evident in the literature eg. Grant, G.W.B. Moores, B. "Application of Methods-Time Measurement in training Centers for the mentally handicapped" University of Manchester Institute of Science and Technology, 1974, and Spilling, O.R. "Job design for handicapped workers" Work Study and Management Services, 14, 10, 1970. These and other pioneering research ventures point to the varied possibilities of application of MTM with mentally and other handicapped students.

There are more than twenty Management Counsel (Training) members of the United States Methods-Time Measurement (MTM) Association with headquarters in Fair Lawn, New Jersey. Every counsel member is approved to provide training in various levels of MTM at either the counsel members or the clients facilities. This training is offered in the form of classroom (lecture) training or, by at least one firm, in the form of programmed instruction training. Many Association members have offices throughout the country; two member firms are based in Pennsylvania: Boehringer Associates of Wynnewood, and Maynard Research Council of Pittsburgh. Although costs for the various level courses vary slightly between Association member firms, contact with the MTM Association and several firms has revealed two basic differences: 1) The type of course (eg. an Appreciation Course, or the MTM ATC Applicators Course or 2) The cost for the two different forms of training (eg. classroom lecture method, or programmed instruction).

The project plans for utilization of MTM are varied (for further explanation see Part II Project Goals and the Use of MTM). These plans would seem to necessitate a minimum of at least one of the personnel receiving the MTM ATC Applicators Course which includes an MTM Association Applicators (Blue Card) examination. In addition, in order to provide in service training for other users, a two day instructor-counseling seminar including examination is required. The two possible methods for accomplishing the aforementioned training of an Applicator would be: 1) classroom lecture training at trainees site for 105-120 hrs. at a minimum cost of approximately $5,000.00 (training at the Association members site is possible in some cases, but it would entail 105-120 hrs. away from office and would necessitate other expenses eg. travel, lodging, and meals); 2) Programmed Instruction Training which is provided in the form of packaged equipment and materials at the trainee's site for approximately $2,485. The advantages of the second alternative over the first, include: the cost factor which becomes increasingly disparate as number of trainees increase (see enclosed Boehringer quotations); and unlimited use of package over a one year period (see enclosed Maynard Research Council-Training Properties Use Agreement).

Once training and the instructor-counseling examination are completed, the project staff person would be authorized to present in service programs to all project participants throughout the Commonwealth. These programs (projected to include the twenty-nine Intermediate Units in Pennsylvania) would offer training in organizing appropriate vocational programs including the MTM Appreciation Course for staff working with trainable mental retardates. The participating Intermediate Units would incur no costs as salary and travel expenses would come from project funds. An alternative to this model of participant in service would be to have an outside firm offer only the Appreciation Course at costs varying from approximately $4,000.00 plus expenses (see enclosed portion of letter from Arthur Andersen & Co.) to approximately $2,000.00 plus expenses (see enclosed Boehringer letter). The costs of this alternative for participants at twenty-nine Intermediate Unit sites would be approximately $58,000.00 excluding expenses.

Part II
Project Goals and the Use of MTM

At the time of Right to Education little formal programming had been developed for TMR students. Certainly no curriculum existed which provided teachers with a training sequence covering all years of obligatory education. To this end, since 1973 the Project staff has developed criterion-referenced measurement based curriculum in the areas of Self-care and academics. Currently, the five volumes of the curriculum is being printed at the request of the State Department of Education-Bureau of Special and Compensatory Education.

Following program development in these areas the State Department awarded Montgomery County Intermediate Unit a grant to develop an in service capacity in the area of vocational education for TMR students. The concerns of the State Department were: goals and activities of educators responsible for vocational programming had become fragmented, or in fact, were nonexistent; no vehicle for communication between vocational educators existed; lower functioning retarded students were not being prepared for competitive employment; there was little purposeful continuity between vocational preparation and other aspects of curriculum development with districts across the Commonwealth; and instruments for assessment of vocational skills were not generally referenced to instructional strategies. It was the purpose of the project to deal with these concerns on a statewide basis.

The project began with an exhaustive search of the literature in the areas of pre/vocational training, assessment and guidance. This search revealed some common types of programming for vocational preparation of both handicapped and normal students. In the training area much current work is being done in the area of job clusters (eg. how training in one area may have applicability in many other occupations). In the areas of assessment and guidance the literature reveals a marked trend toward the use of work sampling procedures and interest inventories to serve as indicators of abilities in various work or occupational areas and their relationship to the student's interests. In the case of normal students, regular and vocational technical schooling has shown to be the best means to achieve vocational success; whereas in the case of the handicapped the same situation is not apparently true. The vocational preparation program models which have evolved for the mentally handicapped have almost universally used a work/study model which involves primarily EMR students spending a portion of their school hours, during the last one or two years of schooling, on job training sites. Increasingly work sampling and interest inventories have been utilized to match students with jobs. The TMR students, however, have not, for the most part participated in this or any other type of program.

With the aforementioned State Department concerns in mind the following summary of findings, is intended to speak to the Projects use of MTM in a program for amelioration of this educational deficit. Regarding fragmented goals and activities of Educators of TMR, MTM provides: a methodology for job analysis; the identification of specific movements which serve as elements of vocational skills; a vehicle to design activities to develop student skills

on meaningful sequences of elements. Success to a criterion on these activities would then place the student in a competitive position for employment on a job which utilizes that sequence of skills.

Regarding the need for a vehicle of communication, obviously in order for communication to take place educators should share a common background of experience. Pennsylvania is a large and populus state encompassing the full range of such variant factors as: socioeconomic levels, population density, industrial concentration, and topography. This range will be reflected in the variety of experiences of educators within and between Intermediate Units. Thus, training must provide the basis for communication. MTM provides a language which each educator can use to deal with vocational habilitation unique to his own geographic area. Yet knowledge of MTM concepts also allows the educator to understand and deal with vocational educators working in an entirely different setting. Potentially, the greatest benefit of MTM is that it allows communication between education, and private enterprise and labor organizations. If retarded students are to find competitive employment, jobs must be identified for which they could qualify; appropriate training should then prepare them to do the job; and most importantly, industry must hire them, and they must perform well enough to be a valuable asset to the organization.

Regarding curriculum continuity, assessment, and competitive employment preparation, the educator involved in training for independence which can lead to vocational placement can begin in the early stages of public education. Using MTM, tasks appropriate to needs of the student at a given age can be analyzed and criterion levels noted. The complexity and nature of the task would change as the student progressed through school. Eventually the student would become involved with sequences of tasks that simulated elements of an actual job in industry. Constant assessment against a research derived criterion is possible using MTM. Through this assessment it would be possible to guide the student toward a position in which he could be successful and to determine when he is ready to compete for that position.

TRAINING PROPERTIES USE AGREEMENT

MADE THIS 26th day of March, 1975

between

MAYNARD RESEARCH COUNCIL INCORPORATED, a Pennsylvania corporation, with offices at 300 Alpha Drive, Pittsburgh, Pennsylvania 15238 (herein called "MRC")

and

Title III Project F4-74001H - Montgomery County Intermediate Unit #23, Blue Bell, Pennsylvania. The "Company" will use the following equipment and materials in the instruction of educational personnel employed by the twenty-nine Intermediate Units within the Commonwealth of Pennsylvania. (herein called "Company").

The parties agree as follows:

1. MRC hereby supplies and Company hereby accepts responsibility for the following equipment and materials for use with MRC Training Course No. 3101, known as the MTM Basic Program.

Programmed and Instruction Materials

2 Sets

Audio Tapes

20

Slides

514

16mm Sound-Color Films

4

Properties for Laboratory Experiments

1	Rubber "BOOK" Stamp
1	Layout Board - E9
13	Pipe Unions
1	Clip Board
10	3" x 5" File Cards
1	Packing Box
1	Layout Board - E2
1	Center Punch
1	6" Plastic Rule
1	Hammer
1	Hand Drill
1	Electric Drill
1	Set Drill Bits
1	Printing Press Mock-Up
10	Screwdrivers
1	Tape Measure
1	Fixture - E-13
1	Fixture - E8
1	Keyhole Saw
1	Wood File
1	Box Nails

1	Yankee Screwdriver
1	Fixture Block - E10
1	Rubber Pad - E16
1	Socket Wrench Set
1	Crescent Wrench
4	Spigots
12	Fuse-in-Line Receptacles
1	Plastic Double Bin
1	Crank Fixture - E3
1	String Fixture - E4
1	Layout Board with Vise - E7
1	Stamp "BOOK" Board - E12
1	Set Assembly Bins
1	Stamp Pad

All said properties and materials are hereinafter referred to as "MRC Training Properties."

2. The MRC Training Properties shall at all times remain and be the sole and exclusive property of MRC, and Company shall have no right or title therein except the rights herein expressly granted to Company. Company agrees that the responsibility for safeguarding and protecting MRC Training Properties shall at all times rest with the Company, and Company agrees to reimburse MRC for any loss, damage, or destruction which shall occur while in the possession of Company.

3. MRC Training Properties will be located at Special Education Center, 1605 B West Main Street, Norristown, Pa. on the premises of Company, but may be transported if required from location to location within Company, or to participating intermediate units.

4. MRC Training Properties are hereby to be utilized by the Company for a period beginning with the date of this Agreement and ending one (1) year from said date. Company agrees to pay, upon the execution of this Agreement, for the said one-year period, the sum of Two Thousand Three Hundred and No/100 Dollars ($2,300.00) plus shipping charges of the MRC Training Properties material. Company may renew this Agreement for one subsequent period at the rate of One Thousand Six Hundred Ten and No/100 Dollars ($1,610.00) and for additional consecutive one-year periods at the published rates set by MRC on each anniversary date. Failure to return to MRC the MRC Training Properties within ten (10) days after the end of any year term shall constitute an automatic renewal for an additional year. If MRC Training Properties are postmarked within the ten (10) day period, they will not be subject to automatic renewal.

5. Company understands and agrees that MRC Training Properties are part of the Program Instruction Course initiated by MRC and are not to be used for any purpose other than the training of Company personnel and other personnel in participating intermediate units in Pennsylvania. It is understood, however, that Company may use the MRC Training Properties to conduct an Appreciation Program, No. 3201; an Intermediate Program, No. 3401; a Refresher Program A, No. 3301; and a Refresher Program B, No. 3302.

6. Company further agrees to pay a Participant Fee of One Hundred Sixty and No/100 Dollars ($160.00) to MRC for each person trained under the Program Instruction Course No. 3101, the MTM Basic Program, and if Company conducts other programs set forth in Paragraph 5, then for each person trained, Company agrees to pay participant fees as follows:

Appreciation Program (3201)	$ 44.00
Intermediate Program (3401)	143.00
Refresher Program A (3301)	143.00
Refresher Program B (3302)	105.00

Company also agrees to pay shipping charges for participant materials provided. MRC reserves the right to revise the aforesaid participant fees on each anniversary date of this agreement.

Upon notification by the Company to MRC as to the number of persons to be trained, MRC agrees to furnish the Company the necessary materials for each person to be trained. These materials may not be returned for credit.

7. MRC agrees to furnish Company with any changes, modifications, and improvements in the MRC Training Properties which it may in the future make so long as this Agreement or any extension is in effect at no additional cost to Company.

8. Company agrees that it will return the MRC Training Properties in good condition at the expiration of this Agreement or any extension thereof, ordinary wear and tear excepted.

9. Company agrees that it will not assign, transfer, or otherwise make available to others any of the MCR Training Properties.

10. If any material is damaged, Company shall return such material to MRC for replacement. It is agreed that should any part of the MRC Training Course of materials be made available to others for purposes other than the training of Intermediate Unit personnel within the Commonwealth of Pennsylvania, damage may result to MRC which cannot be estimated by any ordinary of usual methods of calculation. The Company will require each Intermediate Unit to sign a written statement agreeing that MRC Training Course or materials will not be duplicated. MRC shall have the right

to proceed in equity or at law for such injunctions or restraining orders as may be necessary, at the cost of Company.

11. MRC reserves the right to terminate this Training Properties Use Agreement upon Company's default in the payment of any fee or charge or upon Company's breach of any of its obligations and agreements herein contained.

IN WITNESS WHEREOF, with the intent to be legally bound hereby, the authorized agents of the parties have executed this Agreement the day and year first above written.

MAYNARD RESEARCH COUNCIL INCORPORATED

By _____

_____ VICE-PRES

By _____

APPENDIX G

EXCERPTS FROM VOLUME VI OF

TRAINING FOR INDEPENDENCE

(PREACADEMICS)

CURRICULUM SAMPLE

ACADEMICS

IV. NUMBER WORK

Page	Skill Area	Lesson
	29	Numerals 1 - 20
	30	Number Concepts
	31	Rote Counting
	32	Matching Numerals to Corresponding Objects
	33	Grouping Objects
	34	Words Relating to Concepts of Time
	35	A Clock and Its Parts
	36	Telling Time by the Hour and Half-Hour
	37	Important Times of the Day
	38	A Calendar and Its Parts
	39	Months, Days and Dates
	40	Limited Use of the Calendar
	41	Coins
	42	Value of Coins
	43	Paper Money
	44	Value of Paper Money
	45	Simple Change Making
	46	Quantity Management
		Reference - Mathematics Programs
		Teacher Aids

The lessons contained in this chapter of the Academic Curriculum deal with the basic concepts a TMR child should know before leaving school. This material is geared towards practical usage. The student needs to recognize numbers so he can take a bus, locate a house or place of employment, and read a clock and calendar to attend to his business on the proper day and at the correct time. Many students, as they prepare for employment, will be capable of performing tasks which will offer them the opportunity of earning a living and having a semi-independent life. Difficulties may arise because the retarded person lacks the skills to function in an urban society. These deficiencies can be overcome by stressing the real-life situations where the Number Work lessons will apply. Understanding the value of money, for example, is of little concern to a TMR child unless it is constantly reinforced in relation to a paycheck, buying things he needs, and using a bank for his savings. The teacher is encouraged to expand upon the sample lessons and introduce activities to make this material as realistic as possible.

It is recommended that the teacher always try to work individually with each child in a quiet area with minimal interference. If this is not feasible, small groups of three or four children can be taught at the same time, giving each person as much individual attention as possible. This program does not advocate any specific teaching technique, but asks the teacher to judge which methodology would be most advantageous in helping individual students perform successfully. For a detailed description of the most widely used techniques, please refer to the Manual.

A series of Pre- and Posttests accompany this portion of the curriculum. There is a progression of difficulty built into the program and the teacher, by administering the tests, will insure that more advanced activities are not introduced until simpler ones have been mastered. It is important that the child does not become frustrated and that he fails as infrequently as possible.

Suggested materials are listed with each Skill Area, and the teacher is encouraged to use any other materials and/or activities which are conducive to successful learning. Ditto sheets are recommended to reinforce lessons. These may be purchased in books or be teacher-made to help students practice numerical concepts. The Handwriting chapter (Skill Areas #47 to #50) includes Graphics Suggestions on formation of numbers, and may be taught simultaneously with Number Work.

For students who complete this chapter successfully, a reference bibliography is included, with suggested programs in more advanced mathematical concepts. Some students may be capable of simple computation, problem solving and measurements which these programs introduce at a primary level of instruction.

Teacher aids for Skill Areas are given at the conclusion of the Unit. They are grouped by subject and are only some of the useful materials available to professionals and to the public to help students understand mathematical concepts with concrete activities.

SKILL AREA 29

OBJECTIVE: To Identify the Numeral TWO

TERMINAL BEHAVIOR: To choose the numeral TWO from three distractors.

PREREQUISITES: Skill Area #4 Touch; Skill Area #5 Pick up

GENERAL INSTRUCTION:

This is a sample lesson for identifying numerals. Use this format for each of the numerals from 1 to 20, with particular stress on the ones which appear in the child's address and/or telephone number. See Handwriting portion of curriculum, Graphics Suggestions for formation of numerals.

SETTING: A table or desk in a room with minimal distractions.

MATERIALS: Manipulative numerals of sandpaper, plastic, styrofoam, beaded material, or wood; printed cards with one numeral on each card. Distractors of letters and numerals of the same materials.

TEACHING STEPS:

1. Place sandpaper numeral TWO in front of child.
2. Say "Two".
3. Trace numeral with extended index finger several times, saying number name each time.
4. With index finger of child's dominant hand extended, guide him in tracing numeral several times.
5. Say "Two" each time numeral is touched.
6. Allow child to trace configuration on sandpaper several times, being sure he makes the curved stroke first, followed by the horizontal line. If child lacks coordination, continue to guide his hand in tracing numeral.

7. Repeat Steps 1 to 6 using plastic numeral TWO, styrofoam numeral TWO and printed numeral TWO.

8. Place all four representations of the numeral TWO on the table.

9. With index finger extended, point to each representation.

10. Say "Two" each time a numeral is touched.

11. With index finger of child's dominant hand extended, guide him in pointing to each numeral.

12. Say "Two" each time a numeral is touched.

13. Remove all representations but plastic numeral "TWO".

14. Place extended index finger of child's dominant hand on plastic numeral TWO.

15. Say "Touch the TWO."

16. Repeat Steps 14 to 15 several times.

17. Place plastic numeral TWO in front of child.

18. Say "Touch the TWO."

19. If the child touches the TWO correctly on several trials, go on to Step 20.

    If the child does not touch the TWO, repeat the entire lesson until he is successful on several trials.

20. Place plastic numeral TWO and one distractor on table.

21. Say "Touch the TWO."

22. If the child touches the TWO correctly on several trials, go on to Step 23.

    If the child does not touch the TWO, repeat Steps 20 to 21, helping him select the TWO until he is successful on several trials.

23. Repeat Steps 20 to 21, using sandpaper numeral, styrofoam numeral and printed numeral, each with a different distractor of the same material.

24. Repeat Steps 20 to 21, increasing the number of distractors until the child chooses the numeral TWO from three distractors on several trials.

SKILL AREA 30

OBJECTIVE: To Understand the Concept of ONE

TERMINAL BEHAVIOR: To choose one object from three distractors.

PREREQUISITES: Skill Area #4 Touch; Skill Area #5 Pick up

GENERAL INSTRUCTIONS:

This is a sample lesson for understanding number concepts. Use this format for each of the numerals from 1 to 20. Repeat the entire lesson with two dimensional objects and pictures to reinforce the numerical concept of ONE.

SETTING: A table or desk in a room with minimal distractors.

MATERIALS: A variety of simple objects such as small blocks, crayons, mittens or felt cut-outs.

TEACHING STEPS:

1. Place one block on table.
2. Say "ONE block."
3. Repeat Steps 1 to 2 with each of the different objects.
4. Place two blocks on table.
5. With extended index finger, touch one block, demonstrating how to touch one object.
6. With index finger of child's dominant hand extended, guide him in touching one block.
7. Say "ONE block" each time object is touched.
8. Repeat Steps 4 to 7 several times, with each different pair of objects, emphasizing the word "ONE".

9. Place two blocks on table.

10. Say "Touch ONE block."

11. If the child touches one block correctly on several trials, go on to Step 12.

    If the child does not touch one block, repeat the entire lesson until he is successful on several trials.

12. Repeat Steps 9 to 10 several times with each different pair of objects, emphasizing the word ONE.

13. Repeat Steps 9 to 10, increasing the number of distractors until the child chooses one object from three distractors on several trials.

APPENDIX H

EXCERPTS FROM VOLUME VII OF

TRAINING FOR INDEPENDENCE

(PREVOCATIONAL SKILLS)

CURRICULUM SAMPLE

PREVOCATIONAL/HOME SKILLS

DRAINING

TASK: To drain

ENTRY LEVEL SKILLS:

palmar grasp, reach, move, position, release, turn

CONCEPT AREAS (C-A):

in-out on-off edge-center full-empty

PREPARATION and METWA:

sink; self-supporting collander or large strainer in bowl or pot; oven mitt, if appropriate; food (e.g. cooked pasta, canned fruits or vegetables)

SETTING: kitchen or area with sink and flat work surface

GENERAL INSTRUCTIONS:

1. Safety factors for DRAINING: Use extreme caution when draining hot food to avoid burns; Wipe up spills immediately.

2. Begin with simple draining tasks where liquid is cold and not to be saved. Advance to tasks which involve draining hot foods (e.g. cooked vegetables) and retaining liquid (e.g. broth for soup stock or sauces).

3. Set standard for a particular draining task. Decision Point Aid: Use actual food samples or pictures in sequence to show result desired, whether rinsing is required, etc.

4. Draining may be extended to other cooking activities. Drained food may be used in the preparation of detailed recipes (e.g., drained macaroni for a casserole, drained fruits for a salad).

METHOD VERBS:

opening, placing, putting, POURING-liquid, removing, RINSING

TASK SPECIFIC VERBS:

POURING-liquid

ACTIVITY SEQUENCE:

1. (If appropriate) Open container or package and/or cook food according to recipe directions.

2. Place collander or strainer supported by bowl or pot into sink. (C-A in-out)

3. (If appropriate) Put on oven mitts. (C-A on-off) See Volume II, Skill Area 47.

4. Grasp handle or handles of container to be drained.

5. Position container over center of collander/strainer. (C-A edge-center)

6. Carefully tilting container, pour food and liquid into collander/ strainer.

7. When emptied, put container in appropriate spot. (C-A full-empty)

8. (If appropriate) Remove oven mitts. (C-A on-off)
See Volume II, Skill Area 48.

DECISION POINT

9. (If appropriate) Rinse food.
See Cleaning Section, RINSING.

SEASONING WITH A SHAKER

TASK: To season with a shaker

ENTRY LEVEL SKILLS:

palmar grasp, reach, move, position, release

CONCEPT AREAS (C-A):

above-below up-down toward-away

PREPARATION and METWA:

flat work surface; food (e.g. meat, casserole, salad); shaker filled with seasoning (e.g. salt, spices)

SETTING: kitchen or area with flat work surface

GENERAL INSTRUCTIONS:

1. See Safety Factors - Health.
2. In addition to seasoning with a shaker, food can be seasoned by:
   a. pouring a small amount of seasoning into palm of non-dominant hand and sprinkling seasoning on food with dominant hand;
   b. pouring seasoning into measuring spoon and sprinkling on food;
   c. grinding seasoning from a mill or small grinder.
3. Caution against seasoning too heavily.

METHOD VERBS:

placing, tipping, removing, returning

TASK SPECIFIC VERBS:

tipping

ACTIVITY SEQUENCE:

1. Remove lid of shaker, if appropriate.
2. Grasp shaker in dominant hand.
3. Position shaker slightly above food. (C-A above-below)
4. Tip shaker toward food. (C-A toward-away)
5. Move shaker up and down rapidly, using a circular motion to season food evenly. (C-A up-down)
6. Return shaker to appropriate place.

APPENDIX I

EXCERPTS FROM STATE ON-SITE EVALUATION VISIT DURING 1974 - 1975

ESEA Title III
Evaluative Criteria

RECEIVED
APR 24 1975
DIVISION OF
EVALUATION

Division of Field Surveys
Bureau of Planning and Evaluation
Pennsylvania Department of Education
1974

Commonwealth of Pennsylvania
Milton J. Shapp, Governor

Department of Education
John C. Pittenger, Secretary

Office of Basic Education
Donald M. Carroll Jr., Commissioner
Harry K. Gerlach, Deputy Commissioner

Bureau of Planning and Evaluation
John L. Kennedy, Director

Division of Field Surveys
Robert A. Bowser, Chief

Pennsylvania Department of Education
Box 911
Harrisburg, Pa. 17126

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APPENDIX J

EXCERPTS FROM STATE

ON-SITE EVALUATION VISIT

DURING 1975 - 1976

PART V

ON-SITE EVALUATION TEAM SUMMARY

PART V

ESEA TITLE III ON-SITE EVALUATION TEAM SUMMARY

1. Please list the cultural agency participation and nonpublic educational agencies participation.

No cultural agency participation

Non-public agencies included:

Good Will
Sheltered Workshops
PARC Chapters
Chamber of Commerce
Bureau of Employment Security
Non-Public Schools

2. Please list the strengths of the project.

- Vast amount and quality of literature reviewed
- Dedicated staff
- Good concept of pre-vocational training needed for TMR pupils
- Task analysis approach to curriculum development
- The project director and staff appear to be very aware of the limitations of their audience and, therefore, they have attempted to change attitudes through close analysis of the terminology used throughout their publication.
- Their in-service programs appear to be well planned and the format above average.

3. Please list any special problems or weaknesses of the project as observed by the team.

- There is much mention of Vocational Education but there appears to be little involvement with this area either at state or regional level.
- The assessment of the need of the project was not supported with written documentation. Although the content in the documents appears to be adequate it should be noted that there is no opportunity for field testing and therefore revisions are anticipated. However, if the project had been funded for another year perhaps the documentation would be forthcoming.

4. General recommendations (Recommendations should be geared to improving the program.

   - Recommend that a plan of dissemination be developed that will get materials to teachers in a more efficient manner.

   - Recommend that there be involvement with Bureau of Vocational Education in the Department of Education.

   - Recommend that parents of TMR pupils be involved in planning.

   - Recommend that a needs assessment be conducted if other projects are initiated.

   - Recommend to carefully analyze the format used for the task analysis sheets included in the manual namely the area entitled "Activity Sequence".

APPENDIX K

IN-SERVICE EVALUATION

RESPONSE FORM FOR

1975 - 1976 YEAR

In-Service Evaluation

Date of Workshop:
Location of Workshop:

In order to provide the maximum services to you in the course of this in-service series, it is requested that you fill out this form evaluating the in-service session. Your cooperation will enable us to develop and refine all subsequent in-service materials to meet your needs.

How would you rate this in-service session:

Poor_____ Fair_____ Good_____ Excellent_____

What factors influenced your rating:

_____

_____

_____

What was the strongest aspect of this session:

_____

_____

_____

What was the weakest aspect of this session:

_____

_____

_____

How would you rate the balance of instruction and hands on activity?
Too much lecture material_____ Adequate balance _____
Too much hands on activity_____

Do the topics and materials that were utilized in the in-service have applicability for you in the classroom?

_____

_____

Other comments on in-service session:

_____

_____

APPENDIX L

RESPONSES FROM IN-SERVICE EVALUATIONS FOR 1975 - 1976

TABLE II

Sample Responses

Inservice Evaluation

Intermediate Unit: Carbon Lehigh (21)

Location: Lehigh County Community College

Date: October 27, 1975

Length of Session: Full day

	Number	Percentage
Excellent	10	45%
Good	12	55%
Fair	0	0
Poor	0	0

Comments: Excellent illustrations, very practical and applicable.

Best we've had for teachers of trainable children.

The simulations and the speakers - I thought both were excellent.

Everything discussed was like things which are actually happening in the classroom.

Wasn't just lecture, had participation by class...you put it in black and white.

Good use of A-V equipment.

All the charts in the first half, hard to read.

Can you do anything to implement task analysis into our T.M.R. classes in the I.U.?

The lecturere are experienced teachers of mentally retarded children.

TABLE II (continued)

Inservice Evaluation

Intermediate Unit: Lincoln (12)

Location: Madison Training Center

Date: January 23, 1976

Length of Session: Full day

	Number	Percentage
Excellent	7	44%
Good	9	56%
Fair	0	0
Poor	0	0

Comments: (Good) use of film strips and other materials to keep interest.

Presenters were well-prepared;...really were knowledgable on their subject matter; they allowed for group participation; lots of A-V aids.

Very applicable to my particular class.

Enjoyed all of it.

I have not been to many in-services along this line so I cannot really compare. I have found many new ideas.

I hope that we receive more information concerning your curriculum.

Overhead projectors give me a headache.

Not applicable to me...I teach SPMR.

The information concerning what good jobs are actually available. (strongest aspect)

Liked it - gave me new ideas for two centers and terminology.

Involvement interludes kept lecture in perspective.

(Applicability in the classroom) Yes, if we're allowed to use it.

APPENDIX M

TESTIMONIAL/EVALUATIVE

LETTERS

LANCASTER-LEBANON INTERMEDIATE UNIT

1110 Enterprise Road, East Petersburg, Pa. 17520 Tele: (717) 569-7331

L. LLOYD RUOSS, Ed.D., EXECUTIVE DIRECTOR
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Director of Administration and Management

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Assistant Executive Director, Programs

Lee R. Rhodes, Ed.D.
Assistant Executive Director, Curriculum

March 25, 1976

Mr. Ed Coombe
Special Education Center
1605B W. Main
Norristown, PA 19401

Dear Mr. Coombe:

On behalf of the Lancaster-Lebanon Intermediate Unit 13 may I express my sincere thanks to you for your participation in our Special Education In-Service program. The evaluations completed by our staff indicated a very positive response to your presentation. Our Special Education personnel found the sessions to be of value in programming for exceptional children.

I am hopeful that you found the day to be interesting and rewarding.

Thank you for participating.

Sincerely,

Kit Smith

Kathleen C. Smith

KCS:smr

CENTRAL INTERMEDIATE UNIT

R. D. 1 BOX 19 RADIO PARK
PHILIPSBURG, PENNSYLVANIA 16866
(814) 342-0884

I. B. NOLAN
ASST. EXECUTIVE DIRECTOR

THOMAS CRAIG
DIRECTOR, SPECIAL EDUCATION

JOHN L. HERSHBINE
DIRECTOR, DATA PROCESSING

EDWARD B. REIGHARD
EXECUTIVE DIRECTOR

SUB-OFFICE
212 N. GROVE STREET
LOCK HAVEN, PA. 17745
(717) 748-7181

W.S. BRALLIER
DIRECTOR, I. M. S.
112 N. FRONT STREET
PHILIPSBURG, PA. 16866

March 30, 1976

Dr. Robert M. Burger
Special Education Center
1605B West Main Street
Norristown, Pa. 19401

Dear Dr. Burger:

In response to your letter of March 15, 1976, I would like to express our thanks to you and the staff of the Model for TMR Employment for the opportunity our teachers have had to participate in this training program.

The way the program was conducted, i.e., in an actual classroom over a relatively "long term" basis with excellent rapport being built between the trainers and our teachers, made this experience a more meaningful one than is usually the case with many "in-service" programs where the teachers are mere passive recipients of ideas being expressed by the lecturer.

The fact that the program was geared to teachers of TMR children rather than teachers of EMR's made the program more relevant to the teachers, causing them to think in terms of what their pupils could potentially do after completing their schooling.

The training has had some direct impact on classes in that some teachers have included in their classrooms activities which have been suggested in the in-service program and have started thinking of other activities which might seem appropriate. Because of this stimulation to think of potential employable skills which their students possess and a technique for analyzing activities, the teachers have gained new insights into how they can better prepare their pupils for the time when the pupils will no longer be in school.

Thank you and your staff for your help.

Sincerely yours,

Thomas Craig
Director, Special Education

Tc/lpd

LUZERNE INTERMEDIATE UNIT

PAUL V. IRZINSKI
Director
Special Education

JOSEPH H. POWNALL
Supervisor
Special Classes

NELLO A. RICCETTI, EXECUTIVE DIRECTOR
SPECIAL EDUCATION DEPARTMENT
368 Tioga Avenue
Kingston, Pennsylvania 18704
(717) 287-9681

DONALD E. WALLACE
Instructional Advisor

PERCY C. WILLIAMS
Instructional Advisor

December 15, 1975

Dr. Robert Burger
Special Education Center
1605 B W. Main Street
Norristown, Pa. 19401

Dear Mr. Burger:

I would like to thank you and your staff for conducting the workshop in our Intermediate Unit on November 25th. The response from our staff has been very enthusiastic, and I hope we can arrange future workshops under your direction and guidance.

I will contact you soon to discuss a suitable time for you and your staff.

Sincerely,

Ronald A. Moran
Instructional Advisor

kn

LUZERNE INTERMEDIATE UNIT

NELLO A. RICCETTI, EXECUTIVE DIRECTOR

SPECIAL EDUCATION DEPARTMENT

368 Tioga Avenue
Kingston, Pennsylvania 18704
(717) 287-9681

PAUL V. IRZINSKI
Director
Special Education

JOSEPH P. BRISLIN
Director
Pupil Personnel Service

DONALD E. WALLACE
Instructional Advisor

PERCY C. WILLIAMS
Instructional Advisor

RONALD A. MORAN
Instructional Advisor

March 4, 1976

Dr. Robert Burger, Director
Special Education Center
1605 B West Main Street
Norristown, Pennsylvania 19401

Dear Dr. Burger:

I want to thank you and your staff for the presentation given to our teachers of the trainable at our In-Service meeting held on February 24th. Our staff again found your program to be very informative and helpful to them in developing an appropriate curriculum for their pupils.

As we discussed that evening, I am hopeful we can work out a suitable arrangement to provide programs in this area for next year.

If I can be of any assistance to you in the future, please do not hesitate to call me. Again thanks for the support you gave us this past year.

Sincerely,

Ronald A. Moran

Ronald A. Moran
Instructional Advisor

RAM/kw

Phones: 344-9551 to 344-9558

Northeastern Educational Intermediate Unit
200 ADAMS AVENUE — SCRANTON, PA. 18503

DR. P. M. MENSKY
Executive Director

PAUL BEBLA
Assistant Executive Director

Special Education Services
JOHN J. HAGGERTY, Director

April 5, 1976

Dr. Robert M. Burger
Director
Special Education Center
1605 B West Main Street
Norristown, PA 19401

Dear Dr. Burger:

The In-Service provided by you and your staff for our teachers of the Trainable Mentally Retarded has been of great benefit for their future educational planning and implementation.

The information exchange and their dissemination of successful strategies used in other educational units have cleard up some of our problems making our teachers become better educators. The end results being a better curriculum for our trainable children.

All teachers agree that they have profited and are desirous of more of this type of service.

Sincerely,

John J. Haggerty/eb

JOHN J. HAGGERTY
Director
Special Education
NEIU #19

JJH/aa

cc: E. Benarick

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carbon-lehigh intermediate unit

2370 Main Street, Schnecksville, Pennsylvania 18078 • 215-799-4111

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Instructional Materials
MR. JOHN E. GOODMAN

Professional Education
MR. EDWIN F. WERTMAN

Research/Planning
DR. FLOYD N. KEIM

Special Education
MR. VERNON A. BARLIEB

October 30, 1975

Special Education Center
1605 B West Main Street
Norristown, PA 19401

Gentlemen:

On October 27, 1975, Dr. Robert Burger and his staff presented an all-day workshop for our trainable class teachers and their aides. The workshop topic, of course, concerned itself with their "Training for Independence" project and carried over into the preparation of trainable youngsters for the world of work.

Their practical approach of getting our people involved plus placing them in such a position that they would experience some of the difficulties that a trainable child works under, proved most effective.

We have asked them to return for a repeat performance on November 10, 1975.

Sincerely,

Robert G. Mellen
Supervisor, Special Classes

RGM/dlr
7610

carbon-lehigh intermediate unit

2370 Main Street, Schnecksville, Pennsylvania 18078 • 215-799-4111

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MR. JOHN E. GOODMAN

Professional Education
MR. EDWIN F. WERTMAN

Research/Planning
DR. FLOYD N. KEIM

Special Education
MR. VERNON A. BARLIEB

October 31, 1975

Dr. Robert M. Burger
Special Education Center
1605B West Main Street
Norristown, PA 19401

Dear Dr. Burger:

The special education staff of the Carbon-Lehigh Intermediate Unit and I, personally, greatly appreciate your giving of your time, energy, and professional expertise in providing an inservice workshop to our staff on October 27, 1975.

Your input was very helpful in training our teachers, aides, psychologists, and supervisors. We are certain that the information you provided will improve our special education programs.

Very truly yours,

Earl Miller, Ed.D.
Director, Special Education

EM/dlr
7606
cc: Dr. Lester Mann